DixGardner
PTY LTD

Building Certifiers
Strata Plan Certifiers
Building Regulations
Consultants
Fire Safety Consultants

21 October 2008

The General Manager
Pittwater Council
PO Box 882
Mona Vale NSW 1660

COUNCIL COPY

Attention Planning Department

Dear Sir/Madam,

RE DA NO N0213/08
1753 PITTWATER ROAD, MONA VALE NSW

Please find attached the Construction Certificate for the proposed development that has been granted by the Accredited Certifier

The certificate relates to the alterations and additions to the existing commercial building at the above address

Together with the certificate, we have enclosed the following for Council's record

1 Notice of Commencement of Building Work & Appointment of PCA
2 Other Documentation relied upon
3 Approved Plans
4 Fire Safety Schedule

We have attached a cheque for the registration of this certificate In forwarding the receipt for this cheque it is requested that reference be made to the address of the premises

If you have any queries regarding the above please do not hesitate to contact the undersigned on 9279 3657 during business hours

Yours faithfully,

Wayne Treble
Accredited Certifier

SCANNED
22 OCT 2008
PITTWATER COUNCIL

CC - Kethel (Investments) Pty Ltd

Parcel 248287 22/10/08.

Job 08/0640
Page 1 of 1

Level 11 66 King Street
Sydney NSW 2000
Tel 02 9279 3657
Fax 02 9279 3686

ABN 19 090 427 446 | Email admin@dixgardner.com.au | Web www.dixgardner.com.au

Level 2 25 Watt Street
P O Box 1809
Newcastle NSW 2300
Tel 02 4927 1822
Fax 02 4927 1844

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Construction Certificate

Issued under the Environmental Planning and Assessment Act 1979

Certificate No	**537/08**
Subject Land	1753 Pittwater Road, Mona Vale NSW
Lot and DP	Lot 1, DP 715158
Applicant	Kethel (Investments) Pty Ltd
Address	1792 Pittwater Road, Bayview NSW 2104
Ph /Fax	9979-6404 / 9979-6406
Owner	Kethel (Investments) Pty Ltd
Description of Building Works	Alterations and additions to existing commercial building
BCA Classification	Class 5 & 6
Cost of Building Works	$485 000
Builder	Delmege Constructions
DA No	N0213/08
Determination Date	28/07/2008
Consent Authority	Pittwater Council
Date of Receipt of CC application	21/10/2008
Determination	Approved
Date of Determination	21/10/2008
Approved Plans	Drew Dickson Architects, Project 823 dated 17/07/2008 Drawing No's 003, 100, 199, 201, 202 & 301 Amendment 2
Attachments	• Other Documentation relied upon • Approved Plans • Fire Safety Schedule
Accreditation Level	A2 - Building Surveyor – Grade 2
Registration No	BPB0413
Accreditation Body	Building Professional Board

I certify that

- the work if completed in accordance with documentation accompanying the application for the certificate (with such modifications verified by the certifying authority as may be shown on that documentation) will comply with the requirements of *Environmental Planning & Assessment (EP&A) Regulation 2000* as are referred to in sec 81A (5) of the *EP&A Act 1979*

Signed _____ **Date** 21/10/2008

Wayne Treble
Accredited Certifier

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Sydney NSW 2000
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Fire Safety Schedule

(Clause 168 of the Environmental Planning and Assessment Regulation 2000)

Premises 1753 Pittwater Road Mona Vale NSW
Development Consent No N0213/08
Construction Certificate No 537/08

The following essential fire safety measures shall be implemented in the whole of the building premises and each of the fire safety measures must satisfy the standard of performance listed in the schedule which for the purposes of Clause 168 of the Environmental Planning and Assessment Regulation 2000 is deemed to be the current fire safety schedule for the building

SCHEDULE

Essential Fire and other Safety Measures	Standard of Performance	Existing	Proposed
Discharge from exits	BCA Clause D1 10		✓
Emergency Lighting	BCA Clauses E4 2/E4 4 & AS/NZS 2293 1-2005		✓
Exit Signs	BCA Clauses E4 5/NSW E4 6/E4 7/E4 8 and AS/NZS 2293 1-2005		✓
Fire hydrant systems	BCA Clause E1 3 & AS 2419 1-2005		✓
Fire Windows	BCA Spec C3 4		✓
Hose reel system	BCA Clause E1 4 & AS 2441-2005		✓
Latching devices	BCA Clause D2 21 & Manufacturers Spec		✓
Path of travel for stairways, passageway and ramps	BCA Clauses D1 4 D1 6 & D2 7		✓
Portable fire extinguishers	BCA Clause E1 6 and AS 2444-2001		✓
Required (automatic) Exit Doors	BCA Clause D2 19		✓
Sprinklers	BCA C3 4 & AS 2118 2		
Warning and Operational Signs	BCA Clause D2 23,& EPA Regs 2000		✓

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APPLICATION FORM

Environmental Planning & Assessment Act 1979 s 109C
Environmental Planning & Assessment Regulation 2000 cl 126 or 139

☑ Construction Certificate (CC)
☐ Complying Development Certificate (CDC)

APPLICANT

Name: KETHEL (INVESTMENTS) PTY LTD
Address: 1792 PITTWATER ROAD
BAYVIEW NSW 2104
Signature & Date: J K Hughes 17/10/08
Phone & Fax: 9979 6404 9979 6406

OWNER

Name: KETHEL (INVESTMENTS) PTY LTD
Address: 1792 PITTWATER ROAD
BAYVIEW NSW 2104
Signature & Date: J K Hughes 17/10/08

SUBJECT LAND

Address: 1753 PITTWATER ROAD
MONA VALE NSW 2103
Lot & DP: LOT 1 DP 715158

PROPOSAL

Description: ALTERATIONS & ADDITIONS TO EXISTING COMMERCIAL BUILDING

DEVELOPMENT CONSENT

Not applicable for applications for CDC

DA No: N0213/08
Date of Lodgement:
Date of Determination: 28/07/08

VALUE OF WORKS

Estimated Cost of Works: $ 485,000-00

Level 11
66 King Street Sydney NSW 2000
Tel 02 9279 3657 Fax 02 9279 3686

Level 2
25 Watt Street Newcastle NSW 2300
Tel 02 4927 1822 Fax 02 4927 1844

Web www.dixgardner.com.au | ABN 19 090 427 446 | Email admin@dixgardner.com.au

ABS Schedule to Construction Certificate Application

particulars of the proposal

What is the area of the land (m²) 1167
Gross floor area of existing building (m²) 950
What are the current uses of all or parts of the building(s)/land?
(if vacant state vacant) COMMERCIAL

Location	Use
1753 PITTWATER ROAD MONA VALE NSW 2103	

Does the site contain a dual occupancy? NO
What is the gross floor area of the proposed addition or new building (m²) 160
What are the proposed uses of all parts of the building(s)/land?

Location	Use
	COMMERCIAL

Number of pre-existing dwellings NIL
Number of dwellings to be demolished NIL
How many dwellings are proposed? NIL
How many storeys will the building consist of? TWO

materials to be used

Place a tick adjacent to the material which best describes what the new work will be constructed of

walls	code	roof	code
brick veneer	12	aluminium	70
✓full brick	11	✓concrete	20
single brick	11	concrete tile	10
concrete block	11	fibrous cement	30
concrete/masonry	20	fibreglass	80
concrete	20	masonry/terracotta shingle tiles	10
steel	60	slate	20
fibrous cement	30	✓steel	60
hardiplank	30	terracotta tile	10
cladding - aluminium	70	other	80
curtain glass	50	unknown	90
other	80		
unknown	90		

floor		frame	
✓concrete	20	timber	40
timber	10	✓steel	60
other	80	other	80
unknown	90	unknown	90

COUNCIL COPY

KETHEL (INVESTMENTS) PTY LTD
ACN 005 046 462 ABN 54 502 546 882

1792 PITTWATER ROAD
BAYVIEW NSW 2104
Tel 02 9979 6404
Fax 02 9979 6406

Pittwater Council

OFFICIAL RECEIPT

17/10/2008 Receipt No 248083

In KETHEL (INVESTMENTS) P/_

Applic	Reference	Amount
GL Re	QLSL-Bull LSL @ N0213/08	$1,697 50
PJ Re	SMJC-S94 S94 @ N0213/08 1733 PITW	$17,150 00

Total	$18,847 50
Amounts Tendered	
Cash	$0 00
Cheque	$18,847 50
Db/Cr Card	$0 00
Money Order	$0 00
Agenc Rec	$0 00
Total	$18,847.50
Rounding	$0 00
Change	$0 00
Nett	$18,847 50

Printed 17/10/2008 3 :9:48
Cashier SBrown

ATTENTION -

WAYNE TREBLE

FAX 9279 3686

BRETT DELMEGE

FAX 9922 3900

PROPOSED ALTERATIONS & ADDITIONS TO EXISTING COMMERCIAL BUILDING

1753 PITTWATER ROAD, MONA VALE

TRAFFIC MANAGEMENT PLAN- CONSTRUCTION AND DEMOLITION

17 September 2008

PROJECT NO 8050

PREPARED BY

RAY DOWSETT TRAFFIC AND TRANSPORT PLANNING PTY LTD

3 Colvin Place
Frenchs Forest NSW 2086
Ph (02) 8901 0748
Fax (02) 8901 0749
Mob 0407 221 951
Email rkdowsett@optusnet.com.au

1 0 Introduction

This Traffic Management Plan (CTMP) - Construction and Demolition has been commissioned by Kethel Investments Pty Ltd to comply with consent Condition No D 9 imposed by Pittwater Council as part of development consent DA No 213/08 for alterations and additions to an existing commercial building at 1753 Pittwater Road, Mona Vale The development site enjoys frontages to Pittwater Road and Bungan Lane to the rear Development Consent Condition No D 9 reads as follows -

"9 A satisfactory construction traffic management plan (CTMP) prepared by a suitably qualified traffic consultant is required to be submitted to the Private Certifying Authority prior to the commencement of any site works The plan is to detail

- *Quantity of material to be transported*
- *Proposed truck movements per day*
- *Proposed hours of operation*
- *Proposed traffic routes, noting that 3 tonne load limits apply to some roads within Pittwater"*

The CTMP has also been prepared having regard to the requirements in Section B8 6 *Construction and Demolition - Traffic Management Plan'* in Council's *'Pittwater 21 DCP (adopted 6 August 2007, In Force From 10 September 2007)'* which, under *'Controls*, specifies the following -

> *"For all development where either excavated materials to be transported from the site or the importation of fill material to the site is 100m3 or greater, Construction Traffic Management Plan indicating truck movements and truck routes is to be provided and approved by Council prior to the commencement of works*
> *All transport works must not cause adverse disruption or nuisance to adjoining residences, business or the street system "*

2 0 Construction and Demolition - Traffic Management Plan (CTMP)

The work involves demolition of the existing internal structure of the building back to its foundations of original slabs, support columns, beams, external brick work and then refurbishment to provide new commercial office space on each floor The refurbishment includes provision of a disabled lift and a new facade on the Pittwater Road frontage of the site

2 1 Hours of operation (per Consent Condition No A 7)
Monday to Friday 7 00am - 5 00pm
Saturday 7 00am - 1 00pm
No work Sundays or Public Holidays
Internal building may be carried out at any time outside of these hours, subject to noise emissions from the building or works not being audible at any adjoining boundary

2 2 Excavation, Demolition and Construction

As the work does not involve any excavation of the site the waste will predominately consist of internal walls, fittings and waste material during the construction phase The waste material will be stored on site at the rear of the property in 5m³ 'skip' bins which will be removed as required by the supplier via Bungan Lane negating the need to use the Pittwater Road site frontage which is signposted with a full time "Bus Zone" and PM Clearway restrictions Approximately 10 bins will be required to remove the waste over the period of the project

Materials and expected number of deliveries are -

- Bricks = 4 deliveries
- Concrete = 1 day using a boom pump
- Skip bins = approx 10
- Windows = 1 delivery
- Roofing = 1 delivery
- Mechanical plant = 2 deliveries
- General building materials = 15 -20 deliveries

Material deliveries will be will be governed by the phase of the work which will limit the number and type of delivery vehicle accessing the site over a typical day with a maximum of approximately 5 trucks (10 movements) per day

As noted earlier the rear of the site has a suitable area available for storage of material and standing for delivery vehicles without the need for any vehicle to stand in Bungan Lane

Due to the level of pedestrian activity along Bungan Lane between the adjacent Council's public car park and Waratah Street it is recommended that a 'flagman'/responsible person be available to control vehicle and pedestrian movements when trucks are accessing the site

It is considered that the additional traffic generated during the project will have minimal impact on Bungan Lane or the adjacent street system

2 3 Duration

The total construction period is anticipated to take approximately 3 5 – 4 months

2 4 Truck route

Generally, most trucks will use Pittwater and Mona Vale Roads to access the area with all truck movements concentrated in Bungan Lane between Waratah Street and Mona Vale Road This section of Bungan Lane is subject to a "One Way" southerly traffic flow requiring all 'entry' to the site via the Waratah/Bungan Lane intersection and all 'egress' via the Bungan

Lane/Mona Vale Road intersection which is restricted to left turns These conditions provide for safe and practical access to the site

Waratah Street and Bungan Street are subject to 3 tonne load limits and therefore their use by vehicles in excess of 3 tonnes is restricted to those having a 'bona-fide' reason for making deliveries within the Mona Vale Shopping Centre

There may be a need for some trucks to access the site via Bungan Street and Waratah Street, west of Bungan Lane, depending on their origin Notwithstanding, trucks should be encouraged to use Waratah Street between Pittwater Road and Bungan Lane to access the site minimising the use of these load restricted roads

30 Recommendations

31 That all trucks be encouraged to use Waratah Street between Pittwater Road and Bungan Lane

32 That suitably qualified/responsible 'Flagmen' be available to control vehicle and pedestrian traffic in Bungan Lane when trucks are accessing the site

33 That this CTMP be made available to all parties associated with the development and a copy kept on site during the project

Should clarification of any aspect of this CTMP be required please do not hesitate to contact the author

Delmege®

the property, the people, the vision

PROJECT CONSTRUCTION PLAN

1753 Pittwater Rd, Mona Vale

20 August 2008

Prepared by Delmege Constructions
Suite 2, 90 Mount Street
North Sydney, NSW 2060

Tel (02) 99 22 77 22
FAX (02) 99 22 39 00

Contents

1.0 Introduction

Delmege Constructions has produced the Project Construction Plan (PCP) to thoroughly define the projects management systems and procedures for the project

The PCP is a live document, which will be used to communicate changes and upgrades of the planning procedure

The **Project Manager** is responsible for the PCP which includes but is not limited to the following

- Ensure the PCP is implemented, kept up to date and maintain the integrity of the management system during any improvements that occur
- Ensure all project staff is aware of the PCP requirements
- Ensure all staff understands the company policies and their responsibilities as outlined in the Management Plan and the importance and relevance of their activities to the achievement of project objectives
- Periodically review the effectiveness, performance and operation of the PCP and project objectives and take any necessary action to achieve improvement

2.0 Project Overview

2 1 Project Description

1753 Pittwater Rd, Mona Vale is a 2 storey commercial building refurbishment It is located in Mona Vale and fronts onto Pittwater Road with a rear laneway access by Bungan Lane

The building is to be demolished back to its foundations comprising of original slabs, columns, beams and external brick skin It is to be refurbished to form new commercial offices to both floors by extending roofing and slabs, implementing a disabled access lift and adding to the streetscape by creating a new face with high aluminium windows to the front and rear of the building

2 2 Program Targets

Commence Work On-Site	1st September
Structural Steel	12th September
Roofing	26th September
Masonry	19th September
Mechanical Works	1st November
Internal Fitout Works	21st November
External Works	5th December
Completion	12th December

2 3 OH & Targets

Central to the successful completion of 1753 Pittwater Rd, Mona Vale will be maintaining minimal Class 3 injuries and enduring any incidents are managed, rectified and reported in a timely manner

This shall be achieved by full compliance with current OH & S guidelines and statuary requirements Delmege Constructions has an obligation under the OH&S Act 2000 to ensure the health, safety and welfare of their employees when at work by

(a) maintaining places of work under their control in a safe condition, and ensuring safe entrances and exits,
(b) making arrangements for ensuring the safe use, handling, storage and transport of plant and substances,
(c) providing and maintaining systems of work, and working environments, that are safe and without risks to health,
(d) providing the information, instruction, training and supervision necessary to ensure the health and safety of employees,
(e) providing adequate facilities for the welfare of employees

As an employer, Delmege Constructions must consult with employees about OHS matters, so that employees can contribute to decisions affecting their health, safety and welfare

The project's safety shall also be aided by the influence of Delmege Constructions own safety procedures in implementation such as Site Safety requirements, site inductions, Tool Box Meeting requirements, Site Safety Walks etc

2 4 Environmental Targets

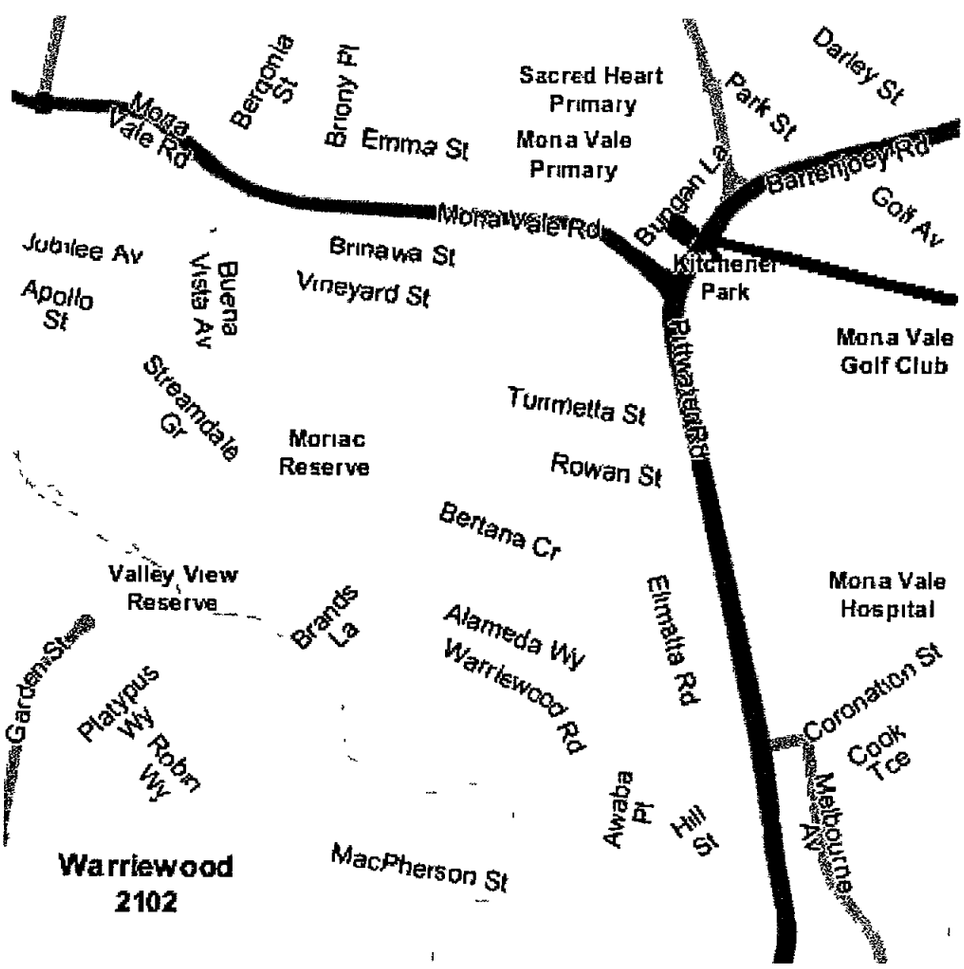
Delmege Constructions waste management will be based upon,

- Using only licensed rubbish removal companies and contractors
- Promoting re-cycling and separation of construction waste i e Dedicated bins for different waste material, steel, wood, plasterboard, paper, paint etc
- Full compliance with current EPA guidelines and requirements
- Full compliance with current Pittwater Council and Sydney Water guidelines and requirements
- Ensuring sub-contractor compliance with Delmege Constructions aims and objectives

3.0 Construction Planning

3 1 Location

The site address 1753 Pittwater Rd, Mona Vale



3 2 Pre Construction Planning

Site Amenities Plan

A Construction and Sub-Contractors shed is located on the site in the north-western corner of the car park Administration or a site office and amenities are located on the 2nd floor of the building

Situated in this office is a standard first aid or medical kit as well as all necessary first aid manuals

3 3 Protection to Infrastructure/Fauna (and Flora)

The protection of all existing infrastructure including but not limited to overhead cables, underground services, council trees and existing street signage

4.0 Construction Methodology

4 1 Construction Hours

The available hours of work for construction are,

Monday to Friday	7 30am to 5 30pm
Saturday	7 30am to 1 30pm

Sundays, RDO's and public holidays – no work

These hours are in-line with Pittwater Council's general conditions of Development Application consent, the NSW EPA, Environment Noise Control Manual

4 2 Key Access Issues

Delmege Constructions shall perform all delivery activities within the Construction site whenever possible

Hydraulic forklift or crane will unload all delivery trucks Whilst all permits for mobile crane use will be obtained from Council and Police when necessary

1753 PITTWATER ROAD MONA VALE

ACCESSIBILITY REPORT

FOR

CONSTRUCTION CERTIFICATE

15th October 2008

Prepared by

accessibility solutions (NSW) PTY LTD

Accessibility Solutions (NSW) PTY LTD ABN 20 105 200 128 467 Beauchamp Road MAROUBRA NSW 2035
Tel 9661-1945 Fax 9661-1982 Mob 0417-467-007 Email markrelf@bigpond com

Contents

Introduction

This Accessibility Assessment Report has been prepared to assess compliance of the construction certificate drawings for the proposed alterations and additions to a retail/commercial development at 1753 Pittwater Road Mona Vale with the ***accessibility*** requirements of Pittwater Council's DCP No 21
In particular

Part C2 6 – Accessibility
Convenient and safe access for all people, including people with a disability, older people, and people with prams, must be provided to and within all buildings to which the general public have access

The siting and design of a building to which the general public has access shall comply with AS1428 Design for Access and Mobility, and shall incorporate the following

(i) continuous accessible path of travel to all areas that the public or a section of the public is entitled or allowed to enter or use, and

(ii) walkways, ramps and landings at a reasonable gradient and width, with handrails and kerbs provided on all ramps, and slip-resistant materials on all floor surfaces, and

(iii) accessible toilet facilities, tactile ground surface indicators, effective signage and illumination, and adequate circulation space through passageways and doorways, and

Achievement of the above listed requirements will also realise compliance with Parts D3 - Access and F2 4 – Toilets of the BCA

Plans

The plans relied upon for this accessibility assessment include the following

Drawing No	Issue	Description
823 – 100	1	Ground & First Floor Plans
823 - 199	2	Roof Plan & Specification Notes
823 – 1401	2	Stair Details
823 – 1402	2	Stair Details
823 – 1411	2	Stair Details
823 – 1412	2	Stair Details
823 – 1621	1	Disabled WC Details
823 – 1622	1	WC Details

Mark Relf, Access Consultant (ACAA)

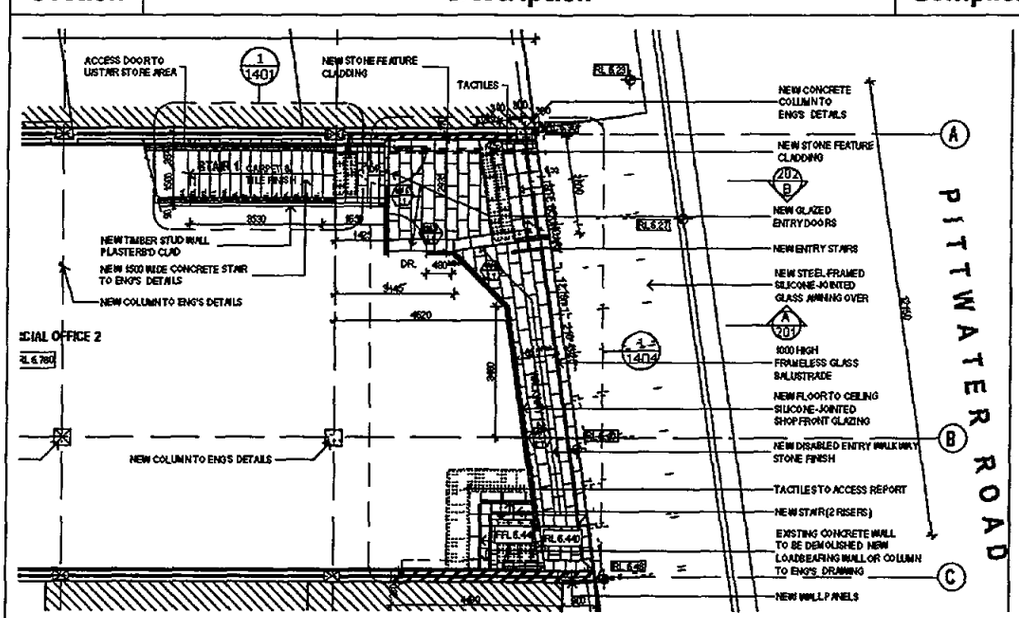
Access Assessment

The access assessment provides an appraisal of the retail/commercial areas of the "new building works" within the subject development (class 5 / 6 of the BCA) and the common principle entrances

As required by Part D3 of the BCA and P21 DCP the assessment considers the following aspects as they relate to the "new building works"

- *Continuous accessible path of travel to all areas that the public or a section of the public is entitled or allowed to enter or use*
- *Internal Circulation including doors, door circulation space, door hardware, walkways, ramps and landings at a reasonable gradient and width, with handrails and kerbs provided on all ramps, and slip-resistant materials on all floor surfaces*
- *Stairways*
- *Accessible toilet facilities*
- *Tactile ground surface indicators,*
- *Signage and illumination*

1 Access to ground floor areas

Section	Description	Complies
		
1.1	The CC plans show that there will be a 1:20 ramped walkway and stairway access from the Pittwater Road footpath @RL6.480 to the ground floor entrances @RL6.780 in accordance with AS1428.1 The entry ramp and doorway entrance provides appropriate landings for circulation and manoeuvring to comply with AS1428.1,	**YES** **YES**

Section	Description	Complies
	P21 DCP and Parts D3 2 / D3 3 of the BCA. The ground floor accessible entry door shall be 900mm minimum width door providing **800mm minimum clear opening** with a level threshold and no lip / change in level greater than 3mm The force required to open the door shall not exceed 19 5 Newtons The CC documentation confirms hazard warning tactile ground surface indicators shall be installed on the public stairway landings within the property to comply with AS1428 4 and Part D3 8 of the BCA (see section 5 below)	**YES** **YES** **YES**
1 2	**Rear Carpark Entry** – provides a stairway (Stair 2) to the first floor commercial offices Construction certificate details of stairway handrails step nosings closed risers and tactile ground surface indicators confirm compliance with AS1428 1, AS1428 4 and Parts D3 3 and D3 8 of the BCA	**YES**

2 Car Parking

Section	Description	Complies
2 1	**Parking** – The plans show an existing carpark at the rear of the site that does not propose any alterations	**N/A**

3 Internal Circulation – Door, doorway circulation space, Stairs

Section	Description	Complies
3 1	**GROUND FLOOR** With regard to internal circulation access the base building construction plan of the ground floor shows open-plan layout with no internal partition walls and no inherent barriers to prevent appropriate internal access and will readily comply with AS1428 1 and Part D3 3 of the BCA	**YES**
3 2	The ground floor plan shows unisex accessible toilets with open plan direct access approach to the accessible toilets, which provides appropriate doorway circulation space to comply with AS1428 1 and Part D3 3 of the BCA	**YES**
3 3	**First Floor Commercial** The principle Pittwater Road entrance provides a new internal stairway (Stairs 1 and 3) to the first floor commercial office entrance	

Section	Description	Complies
	Construction certificate details of stairway handrails, step nosings, closed risers and tactile ground surface indicators confirm compliance with AS1428 1, AS1428 4 and Parts D3 3 and D3 8 of the BCA. The rear entrance also provides a stairway (Stair 2) to the first floor commercial offices Construction certificate details of stairway handrails, step nosings, closed risers and tactile ground surface indicators confirm compliance with AS1428 1, AS1428 4 and Parts D3 3 and D3 8 of the BCA	**YES** **YES**

4 Walkways, ramps and landings

Section	Description	Complies
4 1	As reported in Section 1 – Continuous Accessible Pathways, the plans indicate that there will be a 1 20 gradient pedestrian walkway at the principle entrance with landings designed in accordance with AS1428 1 that will facilitate access to the ground floor level of the building	**YES**
4 2	**Floor Surfaces –** In accordance with AS4586 and HB 197 the tiling / paving of the walkways and toilets shall provide **slip resistance of at least R10 or X** pending the test method	**YES**

5 Tactile Ground Surface Indicators (TGSI's)

Section	Description	Complies
5 1	The tactile ground surface indicators on the entry and internal stairway landings shall provide the following in accordance with AS1428 4 to comply with Part D3 8 of the BCA and P21 DCP • Stainless steel stud type which will enable 30% luminance contrast to the adjacent surfaces • The hazard warning indicators shall be 600mm depth rows for the width of the stairways and setback 290-310mm from the riser	**YES**

6 Toilet Facilities

Section	Description	Complies
6 1	The plans show that there will be Unisex Accessible Sanitary facilities on the ground floor level that provide a toilet and hand basin that will be 2100mm X 2200mm with at least 1350mm clear	**YES**

Section	Description	Complies
	in front of the toilet pan with outward swing doors The detail plans confirm the toilet fittings have been designed in accordance with AS1428 1 to satisfy Part F2 4 of the BCA, **including,** • **The provision of a 300mm min length shelf 800-1100mm above the floor** • **The 870 min door providing at least 800mm clear opening width with a lever handle 900-1100mm height** • **Doorway threshold providing a threshold ramp of 5-50mm in height with a 1 8 maximum gradient**	**YES**

7 Signage and Symbols

Section	Description	Complies
7 1	Tactile and Braille signage shall be installed on toilets in accordance with Part D3 6 and Specification D3 6 of the BCA as attached at Appendix B of this report. 	**YES**

8 Controls

Section	Description	Complies
8 1	**Door Hardware** All doors shall provide lever D ring door handles 900-1100mm above the floor (1000mm preferred)	**YES**
8 2	**Switches and Power Outlets** Light switches shall be installed 900-1100mm above the floor in accordance with AS1428 1 clause 11	**YES**

Mark Relf,
Access Consultant (ACAA)

Appendix A –Statement of Expertise

accessibility solutions (NSW) PTY LTD

CONSULTANCY PROFILE & STATEMENT OF EXPERTISE

Accessibility Solutions consultancy offers a range to services to provide advice for clients to develop new and modify existing buildings, facilities and services to be accessible to people with disabilities to comply with legislation and regulations relevant to people with disabilities

Relevant legislation and regulations that underpins advice includes the Disability Discrimination Act (DDA) Building Code of Australia Australian Standards 1428, HREOC Advisory Notes on Premises DDA Transport Standard, State Environment Planning Policy No 5 Housing for Older People or People With a Disability (SEPP 5) / Seniors Living Policy SEPP 65 – Residential Flat Buildings Design Code and various local government DCP s

The scope of services provided by Accessibility Solutions includes

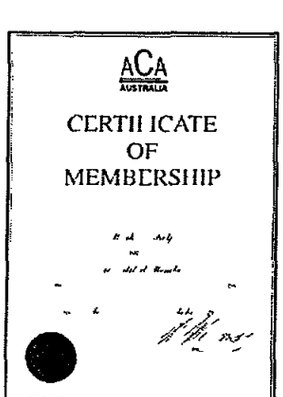
- Plan Appraisals and design advice
- Access Reports for development applications and construction certificates
- Expert Reports for Court evidence
- Access Auditing of existing buildings facilities transport conveyances and infrastructure
- Policy and document reviews and development of Disability Action Plans
- Staff training in access auditing

The services consider issues concerning people with all types of disability including physical vision, hearing, intellectual and other cognitive impairments that may affect access for people with a disability consistent with the Disability Discrimination Act.

As principle consultant Mark Relf has considerable experience and expertise in a wide range of access related projects and is a recognised Access Adviser approved by the NSW Ageing and Disability Department and has attained accreditation with the Association of Consultants in Access Australia for the purposes of providing advice concerning access to the built environment and services for people with disabilities

His expertise has been gained over 20 years working in management and advocacy roles within the disability sector and since 1994 providing advice to clients on access issues Mark also participates on various key committees concerning access for people with disabilities His qualifications and affiliations are

- Accredited Member of the Association of Consultants in Access Australia and Committee of Management member
- Accredited Member of the Access Institute of NSW
- Member, Standards Australia ME/64 Committee responsible for the AS1428 suite and AS4299 – Adaptable Housing
- Member, NSW Heritage Office's – Fire, Access and Services Advisory Panel


ACA
ACCESS CONSULTANTS AUSTRALIA
CERTIFICATE OF MEMBERSHIP

Appendix B – Tactile and Braille Signage Specification

ACCESS AND EGRESS

SPECIFICATION D3 6 BRAILLE AND TACTILE SIGNS

1 Scope

This Specification sets out the requirements for the design and installation of Braille and tactile signage

2 Braille and Tactile signage

2 1 Location of Braille and tactile signs

Signs including symbols numbering and lettering must be designed and installed as follows

(a) Signs must be located not less than 1200 mm and not higher than 1600 mm above the floor or ground surface

(b) Signs with single lines of characters must have the line of tactile characters not less than 1250 mm and not higher than 1350 mm above the floor or ground surface

(c) Signs identifying rooms containing features or facilities listed in D3 6 must be located—

(i) on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300 mm from the architrave and

(ii) in the event of insufficient latch side dimension a sign may be placed on the non-latch side of the door and

(iii) where (i) or (ii) is not possible the sign may be placed on the door itself

(d) Signs identifying paths of travel must be placed so they are located directly ahead in the direction of travel Where one wall continues in the direction of travel and the other forms a corner the sign must be placed on the continuing wall

2 2 Braille and tactile sign specification

The following applies to Braille and tactile sign orientation

(a) Tactile characters must be raised or embossed to a height of not less than 1 mm and not more than 1 5 mm

(b) Characters must have a height of not less than 17 5 mm for each metre of viewing distance

(c) Upper case tactile characters must have a height of not less than 15 mm and not more than 55 mm

(d) Lower case tactile characters must have a height of 50% of the related upper case characters

(e) Tactile characters symbols and the like must have rounded edges

(f) The entire sign including any frame must have all edges rounded

(g) The surface of the sign must be continuous for hygiene purposes

(h) Signs must be constructed so as to resist the removal of letters and Braille dots by picking or adhesive failure

(i) The background, negative space or fill of signs must be of matt or low sheen finish

(j) The characters symbols logos and other features of signs must be matt or low sheen finish

(k) The minimum letter spacing of tactile characters on signs must be 2 mm

(l) The minimum word spacing of tactile characters on signs must be 10 mm

(m) Fonts with letters of constant stroke thickness must be used

(n) The thickness of letter strokes must be not less than 2 mm and not more than 7 mm

(o) Tactile text must be left justified except that single words may be centre justified

2 3 Luminance-contrast

The following applies to luminance contrast as defined in AS 1428 1

(a) The background negative space or fill of a sign or border must have a minimum luminance contrast with the surface on which it is mounted of 30%

(b) A border must be provided for luminance-contrast with the sign's background and shall have a minimum width of 5 mm

(c) Tactile characters icons and symbols must have a minimum 30% luminance contrast with their background or fill within the sign

(d) Luminance-contrasts must be met under the lighting conditions in which the sign is to be located

2 4 Lighting

Braille and tactile signs must be illuminated to ensure luminance contrast requirements are met at all times during which the sign is *required* to be read

2 5 Braille

The following applies to Braille

(a) Braille must be grade 1 Braille (uncontracted) in accordance with the criteria set out by the Australian Braille Authority

(b) Braille must be raised and domed

(c) Braille must be located 8 mm below the bottom line of text (not including descenders)

(d) Braille must be left justified

(e) Where an arrow is used in the tactile sign a small arrow must be provided for Braille readers

(f) On signs with multiple lines of text and characters a semi circular Braille locator at the left margin must be horizontally aligned with the first line of Braille text

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access for the disabled

22 August 2008

The Certification Group Pty Ltd
Wayne Treble, Director
Unit 3/ 6 Wilmette Place
Mona Vale NSW 2103

Dear Wayne,

Re Alterations and Additions to a building at 1753 Pittwater Road, Mona Vale
Development Consent N0213/08

We refer to the above matter and to our meeting on Thursday 21 August 2008

We understand that your advice to be that Pittwater Council has consented to building works in development consent number N0213/08 at the subject premises

Further we understand, your advice to be that the internal mechanics of the building are to be removed to allow compliance with the aforementioned Council approval and as such none of any of the existing fire safety measures in the building will be retained and that any new fire safety measure is to comply with the *Deemed To Satisfy* (DTS) requirements of BCA 2008

In accordance with the requirements of condition 4 of the aforementioned consent, we certificate that we are suitable qualified to state the fire safety measures shown on the overleaf table will be capable of compliance with the requirements of the DTS requirements of BCA 2008

For any additional information in this matter, please contact the undersigned on mobile 0417 027 749

Yours faithfully,
All State Building Surveying Pty Ltd

Sean O'Brien
Managing Director

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All State Building Surveying Pty Ltd
Building Surveying, Fire and Safety Engineering

Fire Safety Measures

No	Fire Safety Measure	Design Standard	Maintenance Standard
01	Emergency Lighting	AS 2993 1 2005	AS2293 1 2005
02	Exit and Direction signs	AS 2293 1 2005	AS 2293 1 2005
03	Hose Reels	AS 2441 1998	AS 1851 2006
04	Warning and operational signs	BCA clause D2 23 EP & A Reg 2000	BCA clause D2 23 EP & A Reg 2000
05	Path of travel	BCA clauses D1 4, D1 6 and D2 7	BCA clauses D1 4, D1 6 and D2 7
06	Exit Doors	BCA clause D2 19	Manufactures approved prototype
07	Latching devices	BCA clause D2 21	Manufactures specification
08	Discharge from exits	BCA clause D1 10	BCA clause D1 10

Our Reference SY080070

25 September 2008

Dix Gardner Pty Ltd
Level 11 66 King Street
SYDNEY NSW 2000

Attn Mr Wayne Treble

Re Structural Design Certification - Alterations and additions
1753 Pittwater Road, Mona Vale

Pursuant to the provisions of clause A2 2 of the building Code of Australia I hereby certify that the above design is in accordance with normal engineering practice and meets the requirements of the Building Code of Australia relevant Australian standards and relevant conditions of the development consent

I am an appropriately qualified and competent person in this area and as such can certify that the design and performance of the design systems comply with the above and which are detailed on the following drawings

S1 00 S2 00, S3 00 S3 01, S3 02 S3 03, S4 00, S4 01, S5 00

I posses indemnity insurance to the satisfaction of the building owner or my principal

Name of Designer	**Chris Rowse**
Qualifications	**BE, MIEAust, CPEng**
Address of designer	**Level 1, 24 Falcon Street, Crows Nest NSW 2065**
Business telephone number	**(02) 9438 5098**
Name of Employer	**ACOR Consultants Pty Ltd**

Yours sincerely
ACOR Consultants Pty Ltd

Chris Rowse
Director

ACOR CONSULTANTS PTY LTD
ENGINEERS
MANAGERS
INFRASTRUCTURE PLANNERS
SYDNEY BRISBANE NEWCASTLE
ACN 079 306 246
APN 26 592 4 4 721
Level 1 24 Falcon Street
PO Box 822
Crows Nest NSW 2065
TEL 02 9438 5098
FAX 02 9438 398
acor@acor.com.au

Our Reference SY080070

25 September 2008

Dix Gardner Pty Ltd
Level 11, 66 King Street
SYDNEY NSW 2000

Attn Mr Wayne Treble

Re Structural adequacy certification
1753 Pittwater Road Mona Vale

Further to our site visit and receipt of the architectural plans for alterations and additions to the above commercial property, we have calculated the increase in loadings onto the existing structure

The new works will consist of modifications to the existing first floor and the re pitching the roof to the front of the property The increased loads onto the existing foundation strata footings and walls from the new works will be within accepted limits

We therefore hereby certify that the existing structure has the structural adequacy to carry the new loads from the alterations and additions

It should be noted that as some parts of the existing house will have varying load intensities following the completed works there may be a risk of differential settlement In our opinion however this would be minor and within accepted limits stated in relevant Australian standards

We also note and confirm that the external walls are cavity brick construction and will have a FRL of 90/90/90 – for type C construction in accordance with the BCA

If you have any further queries please do not hesitate to contact the undersigned

Yours sincerely
ACOR Consultants Pty Ltd

Chris Rowse
BE MIEAust CPEng
Director

ACOR CONSULTANTS PTY LTD
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Proposed Alterations to Existing Commercial Development

1792 Pittwater Road
MONA VALE NSW

Compliance Report

Building Code of Australia
Section J Energy Efficiency

October 2008

Application Solutions
Level Two – 41 Rawson Street
EPPING NSW 2121

Telephone 02 9868 4339 Facsimile 02 9868 2655

Building Code of Australia Section J – Energy Efficiency

Compliance Report

This report has been prepared by
Application Solutions
Suite 21, 41 Rawson Street
EPPING NSW 2121
Telephone 9868 4339
Facsimile 9868 2655

The reader's attention is drawn to the following important information

Disclaimer

Scope Limitations This report is to assess the proposed development (named above), with reference to the documents listed in the report, with respect to compliance with the Building Code of Australia Section J – Energy Efficiency provisions and report the results of the assessment to the client

Exclusive Use This report has been prepared for the exclusive use of Application Solutions' client to meet their particular objectives and by its nature is limited in scope The material contained in this report should not be used for any other purpose or by other persons or entities without contacting Application Solutions No warrantee is given in relation to the material in this report used for other purposes or by other persons or entities without the consent of Application Solutions

Document Control

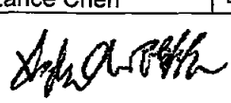
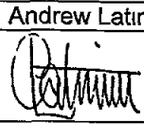
Document Number	191	
Issue Date	13/10/2008	
Description	Section J assessment of the proposed development which comprises various alterations to an existing two storey commercial / retail building	
Prepared By	Lance Chen	B Eng (Mech) M (Eng Sci)
		
Checked By	Andrew Latimer	B Eng (Civil)
		

TABLE OF CONTENTS:

1 Introduction

Application Solutions has been engaged to provide a compliance assessment of the proposed development with respect to the Building Code of Australia (BCA), Section J – Energy Efficiency

The assessment is based on the Deemed-to-Satisfy (DTS) provisions of the BCA The assessment references the National provisions of the BCA and the NSW Appendix to the BCA

1.1 Proposed Development

The proposed development comprises various alterations to the existing two-storey commercial (FF) / retail (GF) building

The proposed development has been classified

Office	Class 5
Retail shop	Class 6

The relevant climate zone is Zone 5

The designer for the proposed development is

Drew Dickson Architects
P O Box 301
ST LEONARDS NSW 1590

1.2 Assessment Outline

This Assessment examines each Part of Section J in turn and provides an opinion on whether the Part applies in this case and if so whether the Deemed–to-Satisfy provisions have been met

A summary of items required to achieve Section J compliance is provided at the beginning of this report These matters will need to be incorporated into the Construction Certificate documentation before a Construction Certificate is granted

In the preparation of this assessment, reference was made to the following plans provided by the designer

Site Plan	823-003-2
Ground & First Floor Plan	823-100-2
Roof Plan	823-199-2
Elevations & Sections	823-201-2
Sections	823-202-2
Elevations	823-301-2

2 Section J: Documentation of Requirements

The following Section J requirements must be incorporated in into the Construction Certificate documentation Refer to the relevant section of the report for more detail

1) Insulation (for Class 5 & 6 buildings)

Insulation must comply with AS/NZS 4859 1 so that it-

(i) abuts or overlaps adjoining insulation, and

(ii) forms continuous barrier and

(iii) does not effect the safe or effective operation of a service or fitting

Reflective insulation must be installed with—

(i) the necessary airspace to achieve the required R-Value between a reflective side of the reflective insulation and a building lining or cladding, and

(ii) the reflective insulation closely fitted against any penetration, door or window opening, and

(iii) the reflective insulation adequately supported by framing members, and

(iv) each adjoining sheet of roll membrane being—

(A) overlapped not less than 50 mm, or

(B) taped together

Bulk insulation must be installed so that—

(i) it maintains its position and thickness, other than where it crosses roof battens, water pipes, electrical cabling or the like, and

(ii) in a ceiling, where there is no bulk insulation or reflective insulation in the wall beneath, it overlaps the wall by not less than 50 mm

2) Roof/Ceiling Insulation (for Class 5 offices and other conditioned spaces, and new installation only)

Roof/Ceiling system to achieve a total R-value of R3 2

Roof/Ceiling insulation to be installed with R-value of not less than R2 73

3) Solar Absorptance (Roof)

The total R-Value required in the Roof/Ceiling system can be reduced by R0 25 if a roof upper surface solar absorptance value of not more than 0 55 is achieved, or by R0 5 if a roof upper surface solar absorptance value of not more than 0 35 is achieved See J1 3b in this report for details

Compliance Report

4) External Wall Insulation

The external wall system that is part of the envelope must achieve a total R-value of R1 8

For double-brick wall construction Insulation of not less than R1 05 is required as part of the plasterboard lining system

For Aluminium cladding wall system, insulation of not less than R1 42 is required as part of a lining system – see report for further details

5) Thermal Break (External Walls)

A thermal break must be provided between external cladding and framing for a metal framed wall that has lightweight external cladding such as weather boards, fibre cement sheeting or other similar minimum thickness and R-value material Thermal break of at least R0 2 required This clause is not applicable if timber frame is used

6) Thermal Properties for External Glazing

Thermal properties for external glazing for the proposed development shall have the following values

Ground Floor (L1-Retail)

All Orientations U=8 0 and SHGC=0 86 or lower values

The requirements above indicate a large range of standard windows from combination of single clear 3mm glass with standard aluminium frame, to any windows with higher thermal performance will achieve compliance in respect to Part J2 – External Glazing

Therefore the proposed external glazing design complies with requirements in BCA Part J2 – External Glazing

First Floor (L2-Commercial)

East Orientation

New external glazing elements to the eastern orientation must have the following thermal properties

U-value is equal or less than 8 0, and

SHGC value is equal or less than 0 86

West Orientation

New external glazing elements to the western orientation must have the following thermal properties

U-value is equal or less than 5 0, and

SHGC value is equal or less than 0 60

7) Sealing New External Windows and Doors

A seal to restrict air infiltration must be fitted to each edge of a new external door, openable external window or the like and may be a foam or rubber compressible strip, fibrous seal or the like

8) Sealing Exhaust Fans

A sealing device such as a self-closing damper or the like must be fitted to each miscellaneous exhaust fan, such as a bathroom exhaust fan, when serving a conditioned space

9) Sealing New roofs, external walls and openings

New roofs, external walls and opening such as a window, door or the like must be constructed to minimise air leakage in accordance when forming part of the external fabric of a conditioned space and must be enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions, or sealed by caulking, skirting, architraves, cornices or the like

10) Air-conditioning General

The air-conditioning system shall be capable of being inactivated when the building or part of building being served is not occupied

If motorized outside air and return dampers are installed they shall be capable of being closed when the system is inactivated

Any supply and return ductwork shall be insulated and sealed in accordance with BCA Specification J5 2

11) Air-conditioning Zones

The different air-conditioning zones shall be separately thermostatically controlled and shall not control the temperature by mixing actively heated air or actively cooled air and limit reheating to not more than a 7 5K rise in temperature at the supply air rate

12) Outdoor Air Economy Cycle

Outdoor air economy cycle must be used in climate zone 6 when the air-conditioning unit capacity is over 50 kWr

13) Motor Shaft Power

The total motor shaft power of the fans in the air-conditioning unit must not exceed 15 W/m2 if the air flow rate is greater than 1000 L/s

14) Mechanical Ventilation System – General (applies if installed)

The Mechanical ventilation system shall be capable of being inactivated when the building or part of the building served by that system is not occupied

15) Maximum Fan Motor Power to Air Flow Rate Ratio

If the air flow rate of the mechanical ventilation system is more than 1000 L/s, have a fan motor shaft power to air flow ratio, or fan motor input power to air flow ratio, in accordance with Table J5 2

16) Time Switch

A time switch in accordance with BCA Specification J6 must be provided to control all air-conditioning / heating of more than 10 kWr or $kW_{heating}$

17) Maximum Interior Lighting Load Limit

The maximum allowed interior illumination power load is 5,731W for Retail Shop 1, 4,805W for Retail Shop 2, 1,613W for Commercial Office 3, and 3,024W for Commercial Office 4

The aggregate design illumination power load for each unit in the proposed building must not exceed the allowed wattage

18) Lighting Control (Switches)
Lighting switches shall be located in a visible position in the room being served or visually adjacent
No lighting switch shall control lighting more than 250 m^2 for a space of not more than 2000 m^2

19) Lighting Control (Occupant Sensing Device / Time Switch)
Overall lighting control shall be controlled by a time switch in accordance with BCA Specification J6 or an occupant sensing device such as – a security key card reader or a motion detector in accordance with BCA Specification J6

20) Lighting Adjacent to Windows
Lighting adjacent to windows shall be switched separately from artificial lighting not adjacent to windows

21) Perimeter Lighting
The lighting around the perimeter of the building shall be controlled by either a daylight sensor or a time switch in accordance with Specification J6, and
When the total perimeter lighting load exceeds 100 W it shall have an average light source efficacy of not less than 60 Lumens/W, or be controlled by a motion detector in accordance with Specification J6, and
When used for decorative purposes, such as facade lighting or signage lighting, it shall have a separate time switch in accordance with BCA Specification J6

22) Boiling Water/Chilled Water Unit
Power supply to a boiling water or chilled water storage unit shall be controlled by a time switch in accordance with BCA Specification J6

23) Hot Water Heater
Any hot water service for food preparation or sanitary purposes must be designed and installed in accordance with Section 8 of AS/NZS3500 4

24) Access for Maintenance
Access for maintenance must be provided to all services and their components, including—
(i) time switches and motion detectors, and
(ii) room temperature thermostats, and
(iii) plant thermostats such as on boilers or refrigeration units, and
(iv) outside air dampers, and
(v) reflectors, lenses and diffusers of light fittings, and
(vi) heat transfer equipment, and
adjustable or motorised shading devices

3 Section J: On Completion of Construction.

The section above provides the documentation of Section J requirements which apply to the proposed development Attention is draw to the need to provide documentation during construction that each requirement has been achieved

This should include, where relevant,

- certificates from specific suppliers and contractors
- photographic record and
- site inspections

4 Assessment

4.1 Part J1 – Building Fabric

J1.1 Application of Part

Offices	Class 5	Applies
Retail Shops	Class 6	Applies

J1.2 Thermal Construction general – Class 5 & 6

Class 5 & 6 buildings –

In areas that are required to be insulated the insulation must be installed in accordance with AS/NZS4859 1 which should be noted on the plans and specifications

See note for construction certificate documentation below

1) Insulation (for Class 5 & 6 buildings)

Insulation must comply with AS/NZS 4859 1 so that it-

(i) abuts or overlaps adjoining insulation, and

(ii) forms continuous barrier and

(iii) does not effect the safe or effective operation of a service or fitting

Reflective insulation must be installed with—

(i) the necessary airspace to achieve the required R-Value between a reflective side of the reflective insulation and a building lining or cladding, and

(ii) the reflective insulation closely fitted against any penetration, door or window opening, and

(iii) the reflective insulation adequately supported by framing members, and

(iv) each adjoining sheet of roll membrane being—

(A) overlapped not less than 50 mm, or

(B) taped together

Bulk insulation must be installed so that—

(i) it maintains its position and thickness, other than where it crosses roof battens, water pipes, electrical cabling or the like, and

(ii) in a ceiling, where there is no bulk insulation or reflective insulation in the wall beneath, it overlaps the wall by not less than 50 mm

J1 2(d) Roof, ceiling, wall and floor materials, and associated surfaces are deemed to have the thermal properties listed in **Specification J1 2** These values are referred to in J1 3

J1.3 Roof and ceiling construction

J1 3(a) Minimum Total R-Value for the new metal roof of the Class 5 building envelope required by Table J1 3 is R3 2 The proposed roof system is assessed in the table below

This R value must be achieved for the envelope of the building as defined in Section J (extract shown below)

Envelope for the purposes of **Section J** means the parts of a building s *fabric* that separate a *conditioned space* or *habitable room* from—

(a) the exterior of the building or

(b) a non-*conditioned space* including—

(i) the floor of a rooftop plant room lift machine room or the like and

(ii) the floor above a *carpark* or warehouse and

(iii) the *common wall* with a *carpark* warehouse or the like

other than a non *conditioned space* through which conditioned air is being exhausted or relieved such as an internal corridor cleaner s room chemical storage room or exhaust riser

Metal Deck Roof System (Skillion Roof, Flat Ceiling)

Item	Description	R-Value	Note
1	Outdoor air film	0 03	*from specification J1 3*
2	Metal decking	0 00	
3	Ceiling Airspace	0 22	*from specification J1 3*
4	Insulation		*To be selected*
5	10mm plaster board	0 06	*from specification J1 3*
6	Indoor air film	0 16	*from specification J1 3*
TOTAL		**0 47**	

To achieve compliance, insulation with an R-value of at least R2 73 (say R3 0) is required to ensure the total roof/ceiling system reaches an R-value of R3 2 See note for construction certificate documentation below

2) Roof/Ceiling Insulation (for Class 5 offices and other conditioned spaces, and new installation only)

Roof/Ceiling system to achieve a total R-value of R3 2

Roof/Ceiling insulation to be installed with R-value of not less than R2 73

J1 3(b) The Total R-Value specified in Table J1 3 can be reduced-
(ii) in climate zone 5, for a Class 5 building with –
(A) a roof upper surface solar absorptance value of not more than 0 55, **by R0 25**, or
(B) a roof upper surface solar absorptance value of not more than 0 35, **by R0 5**

This concession is only applicable if the surface colour is light and has a solar absorptance value of not more than 0 55 The solar absorptance values of the floor materials for the open spaces on the second floor must be confirmed with the material suppliers prior to any use of this concession

3) Solar Absorptance (Roof)

The total R-Value required in the Roof/Ceiling system can be reduced by R0 25 if a roof upper surface solar absorptance value of not more than 0 55 is achieved, or by R0 5 if a roof upper surface solar absorptance value of not more than 0 35 is achieved See J1 3b in this report for details

J1 3(c) Does not apply to the proposed development in Climate Zone 5

J1 3(d) It should be noted that where a metal roof is supported on a metal frame, to which the ceiling is fixed directly underneath, it must have a thermal break, with an R-value not less than R0 2, installed between the metal frame and metal cladding

As suspended ceiling is planned, this arrangement is compliant with the thermal break requirement in this part

J1 3(e) It is noted that roof and ceiling construction is deemed to have the thermal properties listed in Specification J1 3

J1.4 Roof lights

J1 4(a) No new roof light is planned in the proposed Class 5 office building, this clause is therefore not applicable

J1.5 Walls

J1 5 (a) requires that each part of an external wall that is part of the envelope must satisfy one of the options in Table J1 5b Note the assessment is only applied to the new parts of walls which form part of the building envelop

Table J1 5b relates to the Class 5 & 6 parts of the building and requires that the wall systems achieve a minimum R-Value of 1 8 (Climate Zone 5)

The deemed R-Values associated with two forms of construction – existing double-brick walls lined with internal plasterboard and new light-weight cladding system are shown below

Double-Brick Wall Construction (external) (Plasterboard lining)

Item	Element	R-Values	Notes
1	Outdoor air film	0 03	*from specification J1 5*
2	Cement Render	0 02	*from specification J1 5*
3	Masonry	0 09	*from specification J1 5*
4	Cavity airspace	0 17	*from specification J1 5*
5	Masonry	0 09	*from specification J1 5*
7	Air space	0 17	*from specification J1 5*
8	Plasterboard	0 06	*from specification J1 5*
9	Indoor air film	0 12	*from specification J1 5*
	Total R Value	**0 75**	

To achieve compliance it is recommended that the existing double-brick walls be lined with internal plasterboard and an insulating blanket be installed between the wall and lining Insulation of at least R1 05, which will then bring up the total R-value of the external wall system to R1 8, will be required

Aluminium Light-weight Cladding Panel Lined with Plasterboard

Item	Element	R-Values	Notes
1	Outdoor air film	0 03	*from specification J1 5*
2	Al cladding	0	*from specification J1 5*
3	Cavity airspace	0 17	*from specification J1 5*
4	Plasterboard	0 06	*from specification J1 5*
5	Indoor air film	0 12	*from specification J1 5*
	Total R Value	**0 38**	

To achieve compliance - a total R-value of at least R1 8, i e insulation of at least R1 42 (say R1 5) must be incorporated into the new Aluminium cladding wall system

See note for construction certificate documentation below

4) External Wall Insulation

The external wall system that is part of the envelope must achieve a total R-value of R1 8

For double-brick wall construction Insulation of not less than R1 05 is required as part of the plasterboard lining system

For Aluminium cladding wall system, insulation of not less than R1 42 is required as part of a lining system – see report for further details

J1 5(b) This clause provides an option where the thermal properties of the wall may be reduced where the glazing requirements have been increased This option has not been assessed

J1 5(c) This part is related to walls, but other than external walls, which are part of the envelope in climate zones 4, 6, 7 & 8 Therefore this is not applicable to the proposed building in Climate Zone 5

J1 5(d) Further qualifies the use of the option in J1 5(c) thus this is not applicable

J1 5(e) Where light-weight cladding is fixed directly to steel framing it must have a thermal break of at least R0 2 If timber frame is used, this clause is not applicable

See note for construction certificate documentation below

5) Thermal Break (External Walls)

A thermal break must be provided between external cladding and framing for a metal framed wall that has lightweight external cladding such as weather boards, fibre cement sheeting or other similar minimum thickness and R-value material Thermal break of at least R0 2 required This clause is not applicable if timber frame is used

J1 5(f) Wall construction is deemed to have the thermal properties listed in Specification J1 5 (see table above for the relevant items)

J1.6 Floors

This Part is not assessed as the existing floor slab is retained and no new slab is proposed

4.2 Part J2 – External Glazing

J2.1 Application of Part

This Part applies to the proposed Class 5 & 6 building

J2.2 Applicable glazing provisions

This Part specifies which glazing calculation method to use Class 6 parts of the building with a total floor area of not more than 500 m^2 is required to comply with either J2 3 or J2 4, and Class 5 parts of the building must comply with J2 4

J2.3 Glazing -Method 1

This part applies to the ground floor retail parts of the building with a total floor area of not more than 500 m^2, but does not apply to the Class 5 parts of the building For glazing assessment on the Class 5 parts of the building, see J2 4 – Method 2

Sets out the calculation method to obtain the aggregate conductance and aggregate solar heat gain of the glazing by adding the conductance and solar heat gain of each glazing element in accordance with the following formulae

For conductance
(A1xU1)+(A2xU2)+(A3xU3)+
where—
A1, 2, etc = the area of each glazing element and
U1 2, etc = the Total U-Value of each glazing element

For solar heat gain
(A1x SHGC1xE1)+(A2x SHGC2xE2)+(A3x SHGC3xE3)+
where—
A1 2, etc = the area of each glazing element, and
SHGC1 2 etc = the SHGC of each glazing element and
E1 2 etc = the solar exposure factor for each glazing element obtained from Table J2 3b

The assessment results are included in **Appendix 1** and are summarized below

The glazing elements at the shop fronts for both the eastern and the western orientations, pass the glazing requirements using standard glass and frame systems – U = 8 0 and SHGC = 0 86 or lower values, which are also shown in the attached glazing calculator

These requirements represent the whole range from windows of single clear 3mm glass with standard aluminium frame, to any windows with higher thermal performance

Glazed windows/doors of higher thermal performance can be selected for other needs or requirements

While the calculations have been done for the whole building, the results only apply to the new glazing being installed

J2.4 Glazing -Method 2

This Part relates to the Class 5 office part of the building (First Floor)

The glazing facing each orientation must be assessed separately
(b) The aggregate air-conditioning energy value attributable to the glazing must not exceed

Façade Area of the Orientation x Energy Index (J2 4(b))

Energy Option A may be used in Table J2 4a

(c)The aggregate air-conditioning energy value attributed to the glazing must be calculated in accordance with the following formula

$$A_1[SHGC_1(C_A \times S_{H1} + C_B \times S_{C1}) + C_C \times U_1] + A_2[SHGC_2(C_A \times S_{H2} + C_B \times S_{C2}) + C_C \times U_2] +$$

Where –

$A_{1\,2\,etc}$	=	the area of each glazing element
$C_{A\,B\,C}$	=	the energy constants A B and C for the specified orientation from Table J2 4b and
$SHGC_{1\,2\,etc}$	=	the SHGC of each glazing element and
$S_{H1\,2\,etc}$	=	the heating shading multiplier for each glazing element obtained from Table J2 4c and
$S_{C1\,2\,etc}$	=	the cooling shading multiplier for each glazing element obtained from Table J2 4d and
$U_{1\,2\,etc}$	=	the Total U-Value of each glazing element

This formula has been calculated using the ABCB Glazing Calculator for the proposed development in **Appendix 1**

The results of the glazing calculations are summarized below

6) Thermal Properties for External Glazing

Thermal properties for external glazing for the proposed development shall have the following values

Ground Floor (L1-Retail)

All Orientations U=8 0 and SHGC=0 86 or lower values
The requirements above indicate a large range of standard windows from combination of single clear 3mm glass with standard aluminium frame, to any windows with higher thermal performance will achieve compliance in respect to Part J2 – External Glazing
Therefore the proposed external glazing design complies with requirements in BCA Part J2 – External Glazing

First Floor (L2-Commercial)

East Orientation
New external glazing elements to the eastern orientation must have the following thermal properties

U-value is equal or less than 8 0, and
SHGC value is equal or less than 0 86

West Orientation
New external glazing elements to the western orientation must have the following thermal properties

U-value is equal or less than 5 0, and
SHGC value is equal or less than 0 60

It is important that the whole window system meet these requirements not just the glass The Window Energy Rating Scheme has a data base of tested products which can be accessed through www wers net

J2.5 Shading

Shading device and/or overhang structure as planned is required in a number of areas (Refer Appendix 1 – P and H values) No alteration to the designed shading should be made without cross checking compliance with this Part

4.3 Part J3 – Building Sealing

J3.1 Application of Part

Office	Class 5	Applies
Retail	Class 6	Applies

J3.2 Chimneys and flues

Part J3 2 does not apply as no flue or chimney is proposed in air-conditioned areas

J3.3 Roof lights

Part J3 3 does not apply to the proposed development as no roof lights is planned in air-conditioned areas

J3.4 External windows and doors

Attention is drawn to the following clauses which should be included where appropriate as notes on the plans and included in the specifications

From J3 4 (a)
A seal to restrict air infiltration must be fitted to each edge of an external door, openable external window or the like
From J3 4(c)
A seal required by (a)(as above) may be a foam or rubber compressible strip, fibrous seal or the like
From J3 4(d)
A main entrance to a building, if leading to a conditioned space must have an airlock, self-closing door revolving door or the like

See note for construction certificate documentation below

7) Sealing New External Windows and Doors

A seal to restrict air infiltration must be fitted to each edge of a new external door, openable external window or the like and may be a foam or rubber compressible strip, fibrous seal or the like

J3.5 Exhaust fans

J3 5 A miscellaneous exhaust fan, such as a bathroom exhaust fan, must be fitted with a sealing device such as a self-closing damper or the like when serving a conditioned space

See note for construction certificate documentation below

8) Sealing Exhaust Fans

A sealing device such as a self-closing damper or the like must be fitted to each miscellaneous exhaust fan, such as a bathroom exhaust fan, when serving a conditioned space

J3.6 Construction of roofs, walls and floors

Attention is drawn to the following clauses which should be included as notes on the plans and included in the specifications

From J3 6(a)

Roofs, external walls external floors and any opening such as a window door or the like must be constructed to minimise air leakage in accordance with (b) when forming part of the external fabric of a conditioned space—

From J3 6(b)

Construction required by (a) must be—
(i) enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions or
(ii) sealed by caulking skirting architraves, cornices or the like

See note for construction certificate documentation below

9) Sealing New roofs, external walls and openings

New roofs, external walls and opening such as a window, door or the like must be constructed to minimise air leakage in accordance when forming part of the external fabric of a conditioned space and must be enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions, or sealed by caulking, skirting, architraves, cornices or the like

Also note the exemption in (c)

J3 6(c)

The requirements of (a) do not apply to openings grilles and the like required for smoke hazard management

J3.7 Evaporative coolers

Part J3 7(a) Does not apply to the proposed development

4.4 Part J4 – Air Movement

J4.1 Application of Part

Part J4 does not apply to Class 5 or 6 buildings

4.5 Part J5 – Air-conditioning and Ventilation Systems

J5.1

This Clause is blank

J5.2 Air-conditioning and ventilation systems

The designer's attention is drawn to the following clauses relating to air conditioning Their confirmation that their design has included these provisions will be required before finalizing this report as meeting the DTS provisions of this Part The new air-conditioning units and/or modifications to existing ductwork as advised must meet the compliance requirements in J5

(a) **An air-conditioning** *unit or* **system must**—

(i) **be capable of**—

(A) **being inactivated when** *the sole-occupancy unit, building or part of* **the building served is not occupied**, *and*

(B) where the air-conditioning unit or system has motorised outside air and return dampers, close the dampers when the air-conditioning unit or system is inactivated

(ii) have any supply and return ductwork insulated and sealed in accordance with Specification J5 2

See note for construction certificate documentation below

10) Air-conditioning General

The air-conditioning system shall be capable of being inactivated when the building or part of building being served is not occupied

If motorized outside air and return dampers are installed they shall be capable of being closed when the system is inactivated

Any supply and return ductwork shall be insulated and sealed in accordance with BCA Specification J5 2

J5 2(a)(iii) when serving more than one air-conditioning zone or area with different heating and cooling needs –

- *thermostatically control the temperature of each sole-occupancy unit, zone or area, and*
- *not control the temperature by mixing actively heated air and actively cooled air, and*
- *limit reheating to not more than a 7 5K rise in temperature at the supply air rate for the space served and may be increased or decreased at the same rate that supply air rate is respectively decreased or increased*

See note for construction certificate documentation below

11) Air-conditioning Zones

The different air-conditioning zones shall be separately thermostatically controlled and shall not control the temperature by mixing actively heated air or actively cooled air and limit reheating to not more than a 7 5K rise in temperature at the supply air rate

J5 2(a)(iv) relates to the application of an outdoor air economy cycle, and requires an outdoor air economy cycle must be used in climate zone 5 when the air-conditioning unit capacity is over 50 kWr

12) Outdoor Air Economy Cycle

Outdoor air economy cycle must be used in climate zone 6 when the air-conditioning unit capacity is over 50 kWr

J5 2(a)(v) does not apply to the Class 5 or 6 buildings

J5 2(a)(vi) This clause is applicable to air-conditioning systems with a flow rate greater than 1000L/s When the air flow rate is greater than 1000 L/s, be designed so that the total motor shaft power of the fans in the system does not exceed 15 W/m^2 for a building of more than 500 m^2 floor area

See note for construction certificate documentation below

13) Motor Shaft Power

The total motor shaft power of the fans in the air-conditioning unit must not exceed 15 W/m2 if the air flow rate is greater than 1000 L/s

J5 2(b) applies to mechanical ventilation systems if installed

This clause requires that the mechanical ventilation system must –

(i) be capable of being inactivated when the building or part of the building served by that system is not occupied

(ii) When serving a conditioned space, not provide mechanical ventilation in excess of the minimum quantity required by Part F4 by more than 50% other than where there is –

(A) additional unconditioned outside air supplied –

(aa) to provide free cooling

(bb) to balance required exhaust ventilation

(cc) to balance process exhaust (Not Applicable)

(B) additional exhaust ventilation needed to balance the required mechanical ventilation, or

(C) an energy reclaiming system that reconditions outside air, and

See note for construction certificate documentation below

14) Mechanical Ventilation System – General (applies if installed)

The Mechanical ventilation system shall be capable of being inactivated when the building or part of the building served by that system is not occupied

(iii) when the air flow rate is more than 1000 L/s,

(A) have a fan motor shaft power to air flow ratio, or fan motor input power to air flow ratio, in accordance with Table J5 2,

Table J5 2 MAXIMUM FAN MOTOR POWER TO AIR FLOW RATE RATIO

System static pressure (Pa)	Maximum fan *motor shaft power* to air flow rate ratio W/(L/s)	Maximum fan *motor input power* to air flow rate ratio W/(L/s)
Up to 200	0 65	0 73
300	0	1 0
400	0 9	1 27
500	1 15	1 5
600	1 4	1 8
700	1 6	2 1
800	1 8	2 1
900	2 0	2 7
1000	2 2	2 9
Greater than 1000	?	3 3

Notes

1 The maximum fan motor power to air flow rate ratio may be increased to that for the next higher system resistance where a fixed pitch and fixed speed fan is used

2 The system static pressure includes all the resistance against which the fan must operate including integrated fan coils, flaps and grilles

15) Maximum Fan Motor Power to Air Flow Rate Ratio

If the air flow rate of the mechanical ventilation system is more than 1000 L/s, have a fan motor shaft power to air flow ratio, or fan motor input power to air flow ratio, in accordance with Table J5 2

(iv) This is not applicable to the proposed development

J5 2(c) The requirements of J5 2(a) and J5 3(b) must not inhibit –

(i) the smoke hazard management operation of air-conditioning and mechanical ventilation systems, and
(ii) essential ventilation

J5.3 Time switch

A time switch in accordance with Specification J6 must be provided to control each of the following

a Air-conditioning system of more than 10 kWr
b Ventilation system with an air flow rate of more than 1000 L/s
c Heating system of more than 10 $kW_{heating}$

See note for construction certificate documentation below

16) Time Switch

A time switch in accordance with BCA Specification J6 must be provided to control all air-conditioning / heating of more than 10 kWr or $kW_{heating}$

J5.4 Heating and chilling systems

This part does not apply as no heating or chilling system is planned in the proposed development

J5.5 Miscellaneous exhaust systems

No miscellaneous exhaust system with an air flow rate of more than 1000 L/s is to be planned in the proposed development, therefore this clause is not applicable

4.6 Part J6 – Artificial Lighting and Power

J6.1 Application of Part

This Part applies to the proposed development

J6.2 Interior artificial lighting

J6 2(a) does not apply to Class 5 or 6 buildings

J6 2(b)(i) applies to both Class 5 and 6 buildings This clause requires that the aggregate design illumination power load not exceed the power densities specified in Table J6 2b

J6 2(b)(ii) defines the aggregate design illumination power load in (i) for each commercial unit is the sum of the design illumination power loads in each of the space served

The maximum allowed illumination power loads are tabulated below

Maximum allowed illumination power for Retail Shop 1

Alterations to Existing Commercial Development 1753 Pittwater Road, Mona Vale NSW 2103

	Spaces	Space Categories	Area (m2)	Power Density (W/m2)	
Retail Shop 1	Disable M/F	Service area, locker room, staff room, cleaner's room, rest room and the like	4.34		13
Retail Shop 1	Merchandised Areas	Retail space including a museum and gallery whose purpose is the sale of objects	217.92		5 448
Retail Shop 1	Stair2 & Entry	Entry Lobby	18.01		270
Total			240.27		5,731

Maximum allowed illumination power for Retail Shop 2

Alterations to Existing Commercial Development 1753 Pittwater Road, Mona Vale NSW 2103

	Spaces	Space Categories	Area (m2)	Power Density (W/m2)	
Retail Shop 2	Disable M/F	Service area, locker room, staff room, cleaner's room, rest room and the like	4.33		13
Retail Shop 2	Merchadised Areas	Retail space including a museum and gallery whose purpose is the sale of obje(	191 7		4,793
Total			196.03		4,805

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Maximum allowed illumination power for Commercial Office 3

Alterations to Existing Commercial Development 1753 Pittwater Road, Mona Vale NSW 2103

Spaces		Space Categories	Area (m2)	Power Density (W/m2)	
Commercial Office 3	General Office	Office artificially lit to an ambient level of 200 lx or more	145 73		1 457
Commercial Office 3	Stair2 & Entry	Entry Lobby	9.65		145
Commercial Office 3	WC (M/F)	Service area, locker room, staff room, cleaner's room, rest room and the like	3 62		11
Total			159.00		1,613

Maximum allowed illumination power for Commercial Office 4

Alterations to Existing Commercial Development 1753 Pittwater Road, Mona Vale NSW 2103

Spaces		Space Categories	Area (m2)	Power Density (W/m2)	
Commercial Office 4	General Office	Office artificially lit to an ambient level of 200 lx or more	283.54		2,835
Commercial Office 4	Stair1 & Entry	Entry Lobby	11 85		178
Commercial Office 4	WC (M/F)	Service area, locker room, staff room, cleaner's room, rest room and the like	3 74		11
Total			299 13		3,024

See note for construction certificate documentation below

17) Maximum Interior Lighting Load Limit

The maximum allowed interior illumination power load is 5,731W for Retail Shop 1, 4,805W for Retail Shop 2, 1,613W for Commercial Office 3, and 3,024W for Commercial Office 4

The aggregate design illumination power load for each unit in the proposed building must not exceed the allowed wattage

J6 2(b)(iii)(A) This clause further refines the calculation method used to find the total illumination power load In this instance the total illumination power load of all systems has been adopted (ref J6 2(b)(iii)(A)(aa))

J6 2(b)(iii)(B) Where **12V lights** are to be used this clause applies **80% of the transformer power rating** will need to be included in the **Designed Lighting Power calculation**

J6 2(c) The requirements of (a) and (b) **do not** apply to a range of situations, the relevant ones being

(i) **Emergency lighting**
(ii) **Signage** and **display lighting within cabinets and display cases**
(iii) to (vii) NA

J6.3 Interior artificial lighting and power control

This Part provides detailed control requirements for lighting The relevant extract is provided below

(a) and (b) not applicable to the proposed development

(c) An artificial ***lighting switch must—***
(i) be located in a visible position—
(A) in the room or space being switched, or
(B) in an adjacent room or space from where the lighting being switched is visible, and
(ii) Not operate lighting within an area of more than –
(A) 250 m2 for a space of not more than 2000 m2 floor area, or
(B) 1000 m2 for space of more than 2000 m2 floor area

See note for construction certificate documentation below

18) Lighting Control (Switches)

Lighting switches shall be located in a visible position in the room being served or visually adjacent

No lighting switch shall control lighting more than 250 m^2 for a space of not more than 2000 m^2

(d) This clause applies to the proposed development, as the floor area is more than 250 m^2

Artificial lighting in a building or storey of a building, of more than 250 m^2 in floor area must be controlled by –

(i) *a time switch in accordance with* **Specification J6**, *or*
(ii) *an occupant sensing sensing device such as –*
(A) *a security key card reader, or*
(B) *a motion detector in accordance with* ***Specification J6***

See note for construction certificate documentation below

19) Lighting Control (Occupant Sensing Device / Time Switch)

Overall lighting control shall be controlled by a time switch in accordance with BCA Specification J6 or an occupant sensing device such as – a security key card reader, or a motion detector in accordance with BCA Specification J6

(e) artificial lighting adjacent to windows in a storey of a Class 5 or 6 building, of more than 250 m^2 in floor area must be switched separately from artificial lighting not adjacent to windows

See note for construction certificate documentation below

20) Lighting Adjacent to Windows

Lighting adjacent to windows shall be switched separately from artificial lighting not adjacent to windows

(f) The requirements of **(a)**, **(b)**, **(c)**, **(d)** and **(e)** do not apply to the following
(i) Emergency lighting in accordance with **Part E4**

(g) Not applicable to the proposed development

J6.4 Interior decorative and display lighting

It is understood that no decorative or display lighting is planned in the proposed development, therefore this part is not assessed

J6.5 Artificial lighting around the perimeter of a building

Any lighting around the perimeter of the building, must be controlled in accordance with this Part The relevant extract is provided below

J6 5(a) Artificial lighting around the perimeter of a building, must—

*(i) be controlled by either a daylight sensor or a time switch in accordance with **Specification J6**, and*

(ii) when the total perimeter lighting load exceeds 100 W—
(A) have an average light source efficacy of not less than 60 Lumens/W, or
*(B) be controlled by a motion detector in accordance with **Specification J6**, and*

*(i) when used for decorative purposes, such as facade lighting or signage lighting, have a separate time switch in accordance with **Specification J6***

See note for construction certificate documentation below

21) Perimeter Lighting

The lighting around the perimeter of the building shall be controlled by either a daylight sensor or a time switch in accordance with Specification J6, and

When the total perimeter lighting load exceeds 100 W it shall have an average light source efficacy of not less than 60 Lumens/W, or be controlled by a motion detector in accordance with Specification J6, and

When used for decorative purposes, such as facade lighting or signage lighting, it shall have a separate time switch in accordance with BCA Specification J6

J6.6 Boiling water and chilled water storage units

This Part provides control conditions for a boiling water unit If a new boiling water unit is to be installed the following clause should be noted The building designer should provide confirmation that a boiling water unit will or will not be installed

> *Power supply to a boiling water or chilled water storage unit must be controlled by a time switch in accordance with* ***Specification J6***

See note for construction certificate documentation below

22) Boiling Water/Chilled Water Unit

Power supply to a boiling water or chilled water storage unit shall be controlled by a time switch in accordance with BCA Specification J6

4.7 Part J7 – Hot Water Supply

J7.1 Blank

J7.2 Hot water supply

This Part applies to Class 5 & 6 buildings

This Part effects *a hot water system for food preparation and sanitary purposes* If such a system is planned, it must be designed and installed in accordance with Section 8 of AS/NZS 3500 4

See note for construction certificate documentation below

23) Hot Water Heater

Any hot water service for food preparation or sanitary purposes must be designed and installed in accordance with Section 8 of AS/NZS3500 4

4.8 Part J8 – Access for Maintenance

J8.1 Application of Part

This Part applies to Class 5 & 6 buildings

J8.2 Access for Maintenance

These clauses set out access requirements for serviceable systems The building designer should confirm that these have been incorporated into the design The relevant extract is provided below

Access for maintenance must be provided to—
(a) all *services* and their components including—
(i) time switches and motion detectors and
(ii) room temperature thermostats and
(iii) plant thermostats such as on boilers or refrigeration units and
(iv) outside air dampers and
(v) reflectors lenses and diffusers of light fittings and
(vi) heat transfer equipment and
(b) adjustable or motorised shading devices

See note for construction certificate documentation below

24) Access for Maintenance

Access for maintenance must be provided to all services and their components, including—

(i) time switches and motion detectors, and

(ii) room temperature thermostats, and

(iii) plant thermostats such as on boilers or refrigeration units, and

(iv) outside air dampers, and

(v) reflectors, lenses and diffusers of light fittings, and

(vi) heat transfer equipment, and

adjustable or motorised shading devices

5 Appendix 1 Glazing Calculations

Ground Floor

Report from Delmege Mona Vale Glazing M1 *printed 13/10/2008*

GLAZING CALCULATOR FOR USE WITH CLAUSE J2 3, BCA VOLUME ONE (METHOD 1)

Climate zone: 5
Building name/description: Alterations to Existing Commercial Development Mona Vale
Unit no: 1&2
Storey: GF
Area of floor: 456m²
Gla g a ? um² (16 o a a of ?c Storey GF)

Number of rows preferred in table below: 4 (n tl d played)

CONSTANTS and ALLOWANCES (per storey)

	GF
C_U / C_{SHGC}	19/014
C_U x Area	867 0
C x Area	63 9

GLAZING ELEMENTS ORIENTATION SIZE and PERFORMANCE CHARACTERISTICS									SHADING		CALCULATION DATA			CALCULATED OUTCOMES - OK (if inputs are valid)			
Glazing element		Sector faced		Size			Performance		P&H or device		Exposure		Size	Conductance - PASSED		Solar heat gain - PASSED	
ID	Description (optional)	Storey GF	Storey if used	Height (m)	Width (m)	Area (m²)	Total U-Value (NFRC)	SHGC (NFRC)	P (m)	H (m)	P/H	E factor	Area used (m²)	U x area	Element share of % of allowance used	SHGC x E x area	Element share of % of allowance used
1	E W4(L1) & Fixed Fr	E		4.55	2.86		8.0	0.86	3.78	4.89	0.77	0.51	13.01	104.1	15% of 66%	5.7	12% of 72%
2	E W1&2(L1)	E		4.75	9.10		8.0	0.86	1.20	5.04	0.24	0.80	43.23	345.8	60% of 66%	32.0	70% of 72%
3	W W5(L1)	W		2.56	2.12		8.0	0.86				1.30	5.43	43.4	8% of 66%	6.1	13% of 72%
4	W W6(L1)	W		1.76	5.88		8.0	0.86	device		2.00	0.25	10.35	82.8	14% of 66%	2.2	5% of 72%

If inputs are valid ✓

IMPORTANT NOTICE AND DISCLAIMER IN RESPECT OF THE GLAZING CALCULATOR
The *Glazing* Calculator has been developed by the ABCB to assist in developing a better understanding of glazing energy efficiency parameters.
While the ABCB believes that the *Glazing* Calculator if used correctly will produce accurate results it is provided as is and without any representation or warranty of any kind including that it is fit for any purpose or of merchantable quality or functions as intended or at all
Your use of the *Glazing* Calculator is entirely at your own risk and the ABCB accepts no liability of any kind

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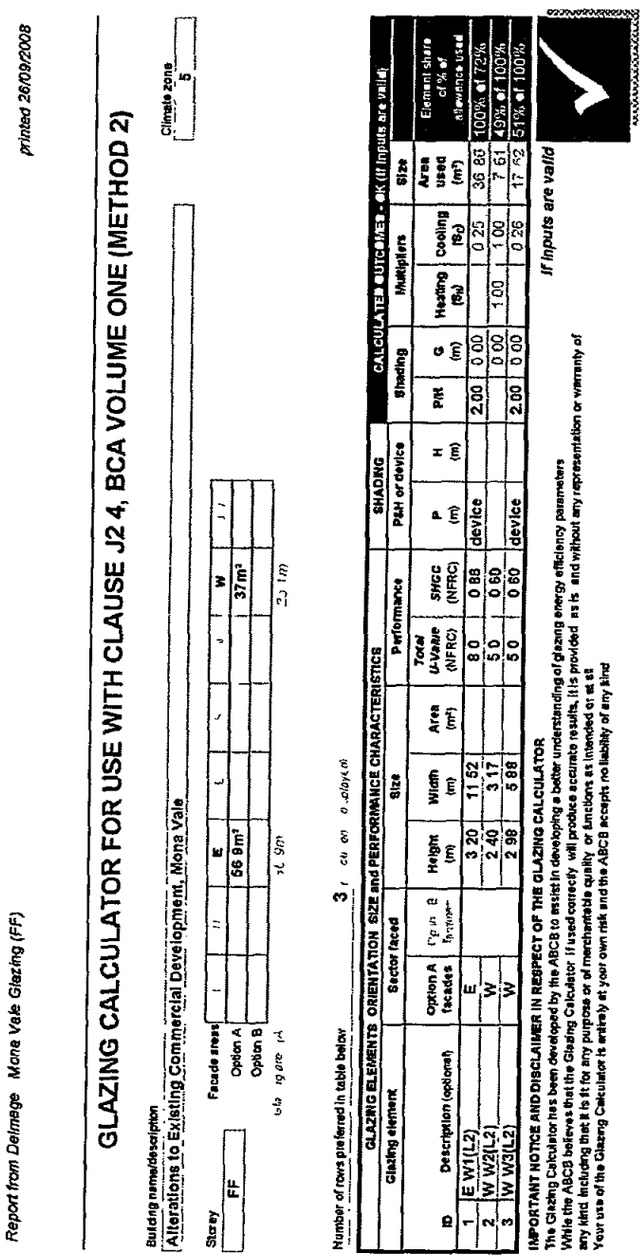
First Floor



Report from Delmege Mona Vale Glazing (FF) printed 26/09/2008

GLAZING CALCULATOR FOR USE WITH CLAUSE J2 4, BCA VOLUME ONE (METHOD 2)

Building name/description
Alterations to Existing Commercial Development, Mona Vale

Climate zone 5

Storey
FF

Façade areas

	E	L	W
Option A	56 9m²		37m²
Option B			

Number of rows preferred in table below 3

GLAZING ELEMENTS ORIENTATION SIZE and PERFORMANCE CHARACTERISTICS | SHADING | CALCULATED OUTCOMES - OK (if inputs are valid)

ID	Glazing element: Description (optional)	Sector faced: Option A facades	Size: Height (m)	Size: Width (m)	Size: Area (m²)	Performance: Total U-Value (NFRC)	Performance: SHGC (NFRC)	Shading: P (m)	Shading: H (m)	Shading: PiH	Shading: G (m)	Multipliers: Heating (Sh)	Multipliers: Cooling (Sc)	Size: Area used (m²)	Element share of % of allowance used
1	E W1(L2)	E	3 20	11 52		8 0	0 88	device		2,00	0 00		0 25	36 86	100% of 72%
2	W W2(L2)	W	2 40	3 17		5 0	0 60				0 00	1 00	1 00	7 61	49% of 100%
3	W W3(L2)	W	2 98	5 88		5 0	0 60	device		2,00	0 00		0 26	17 62	51% of 100%

If inputs are valid

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While the ABCB believes that the Glazing Calculator if used correctly will produce accurate results, it is provided as is and without any representation or warranty of any kind including that it is fit for any purpose or of merchantable quality or functions as intended or at all
Your use of the Glazing Calculator is entirely at your own risk and the ABCB accepts no liability of any kind

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DREW DICKSON **ARCHITECTS**

29th April 2008 Our ref 823 Schedule of External Finishes 080429

KETHEL (INVESTMENTS) PTY LTD
Proposed Alterations and Additions to Existing Premises at
1753 Pittwater Road Mona Vale

SCHEDULE OF EXTERNAL FINISHES

FRONT ENTRY STAIRS RAMP AND ALCOVE

- **Paving** – Non-slip stone tiles on new concrete slabs and steps with non-slip carborundum strip inserts to nosings Tactile Indicators PC(Allow $50/m2)
  Stone - Cadmos Cream Limestone
  Size - 600 x 300 x 30mm thick
  Finish - Rustic
- **North Wall** Selected Flagstone veneer facing to brick and concrete wall
  Stone Cinajus Savannah Gold random pattern flagstone veneer to approved sample or approved alternative
  Size - Random x 30-40mm overall thickness including Stoneazy Lockfast thin fixing system
- **East Wall** – Below window and edge of ramp - Stone tile veneer to match floor
  Shopfront - Silicone jointed toughened glass in recessed aluminium frame
  Doors - Toughened glass frameless door with overhead door closer mechanism fully concealed in aluminium transom Pre-finished aluminium façade panel to transom
  To first floor façade box gutter and sun awning including soffit - Pre-finished Aluminium faced façade panels* Colour - Equal to Colorbond – Shale Grey
- **South Wall** Pre-finished Aluminium faced façade panels* Colour - Equal to Colorbond – Shale Grey Fixed to brick and concrete fire rated substrate using Smartfix façade fixing system
- **Ceiling** – *To entry alcove - Painted 9 mm screw up flush compressed fibrous cement* panels with shadowline recessed cornice joint to ground floor Selected recessed light fittings
  Sun awning including soffit and window reveals - Pre-finished Aluminium faced façade panels* Colour - Equal to Colorbond – Shale Grey Selected recessed light fittings
- **Accessories** Brushed stainless steel pipe wall handrails both sides of entry stair to ground floor
  Toughened glass balustrade to accessible walkway

REAR ENTRY

- **Paving** - Non-slip stone tiles on new concrete slab-on-ground as specified above (Allow PC $50/m2 supply only)
- **North Wall** - Selected flagstone veneer facing to brick and concrete wall As above
- **East Wall** - Silicone jointed toughened glass in recessed aluminium frame Toughened glass frameless doors with overhead door closer mechanism fully concealed in aluminium transom Pre-finished aluminium faced cladding panels
- **South** – Timber slat fence to detail Dark red stain colour
- **West** Open to car park Existing grated drain made good
- **Soffit** - Painted steel framed safety glass awning to transom above doors Pre-finished Aluminium faced façade panels* to facia and eaves at first floor ceiling level Colour - Equal to Colorbond - Shale Grey

DREW DICKSON **ARCHITECTS** PTY LIMITED ABN 51092806123 Nominated Architect Drew Dickson Architect s Registration No 4215

Level 2 16 Atkinson Street St Leonards NSW 2065 Tel 02 9025 3700 Fax 02 9901 4644 Email info@ddp com au
PO Box 301 St Leonards NSW 1590 Web www ddp com au

EXTERNAL WALLS

- **North Wall** Painted Bagged finish to existing and new concrete and brick walls
  Pre-finished Colorbond Shale Grey colour capping flashings and trims to match wall colour Wall Colour - RGB 182/181/178 (Warm grey equal to Colorbond Shale Grey)
- **Stone Entry Feature Walls** - Flagstone veneer entry feature walls as previously specified and detailed in entry areas Nominal 30mm overall thickness
- **East Façade** - Pre-finished Aluminium faced façade panels* Colour - Equal to Colorbond Shale Grey as for Front Entry above Nominal 1200 x 800mm Fixing as above
- **South Façade** - Front portion - Pre-finished Aluminium faced façade panels* Colour A B S Fixed to concrete and brick fire rated substrates using the Smartfix façade panel fixing system of aluminium extrusions Not more tan 20mm overall thickness
  Rear portion Painted Bagged finish to existing and new concrete and brick walls Pre-finished Colorbond capping flashings and trims to match wall colour
- **West Façade** – As per rear entry Pre finished Aluminium faced façade panels* Also to facia and eaves at first floor ceiling level Colour - Equal to Colorbond Shale Grey Size – Nominal 1200 x 600mm Fixed to concrete and brick fire rated substrates using the Smartfix façade panel fixing system of aluminium extrusions

ROOF

- **Roofing** - Existing and new pre-finished corrugated metal deck sheet roofing
  New sheeting to match existing material and profile (Similar to Capral Aluminium LT7 roofing)
  Repaint existing roofing to match new
  Colour - Colorbond Shale Grey

- **Inside face of parapet** - Pre-finished Aluminium faced façade panels*
  Colour -To match walls Fixing as above
- **Trims** - Pre-finished Colorbond capping flashings and trims to match wall colour
  Colorbond Shale Grey

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DREW DICKSON **ARCHITECTS**

Our ref 823TP03

1 September 2008

The Certification Group
P O Box 870
NARRABEEN NSW 2101

Attention Mr Wayne Treble

Re Alterations to existing building
1753 Pittwater Road Mona Vale NSW 2103

DESIGN STATEMENT

With regard to the provision of toilets for the project described above toilet facilities including air locks will be installed in the building prior to completion in accordance with BCA requirements The toilets will be installed in the locations prescribed by the building's tenants once the tenants and their requirements are finalised

Yours faithfully

Drew Dickson

Drew Dickson
DREW DICKSON **ARCHITECTS** PTY LIMITED

DREW DICKSON **ARCHITECTS** PTY LIMITED ABN 51092806123 Nominated Architect Drew Dickson Architect s Registration No 4215

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FILE COPY

SYDNEY WATER
BUILDING PLAN APPROVED
SUBJECT TO REQUIREMENTS

Dolfin No D07/8-10434 Quick Check Ref No 2256464

e-Developer Case No

Property Location

Street No 1753 Lot No 1

Street Name MONA VALE ROAD

Suburb MONA VALE

Building/Structure Description ALTERATIONS & ADDITIONS TO COMMERCIAL BUILDING

Building Plan No 823-003 Engineers Plan No 823-201

Proposed building/structure is **APPROVED** to construct **OVER/~~ADJACENT TO~~** a Sydney Water sewer/~~asset~~, subject to the following requirements
(NB Delete non applicable requirements)

~~1 The foundations/piers are to be founded below zone of influence, strata~~
~~2 No part of the building/structure or its foundations to be less than a minimum metre horizontal distance from the centreline of the sewer~~
~~3 No part of the swimming pool or its foundations to be less than a minimum metre horizontal distance from the centreline of the sewer to the outer edge of the pool coping~~
~~4 No part of the building/structure or swimming pool coping to be less than 1 m horizontal distance from outside edge of maintenance hole rim / maintenance shaft rim / lamphole rim / vertical rim / rodding point or edge of ventshaft~~
~~5 No piering of building/structure to be less than 2 m horizontal distance from centreline of maintenance hole to edge of piers~~
~~6 Foundations/piers are constructed in accordance with Engineers detail plans (stated above) as submitted to Sydney Water~~
~~7 All foundations/piers are to be founded to below the zone of influence or to solid rock~~
8 Indemnity letter to be signed by owner/s of property and returned to Water Servicing Coordinator prior to issue of building plan approval
~~9 Concrete encase approximately metres of sewer Concrete encasement to be carried out by an Accredited Constructor of Minor Works (Sewer) / Constructor and a Minor Works Agreement signed prior to commencement of works~~
~~10 Concrete encasement must extend a minimum of 600 mm past the external walls of the building/structure~~
~~11 Minimum of mm vertical clearance between top of concrete encasement to underside of concrete slab~~
~~12 Minimum of mm of compressible membrane between top of concrete encasement to underside of concrete slab~~
~~13 Property connection point (junction) to be inserted under Minor Works Agreement~~
~~14 All works are to be completed in accordance with Case No~~

SPECIAL REQUIREMENTS

General Indemnity to be signed by owners and returned to WSC prior to release of approved building plans

NOTE

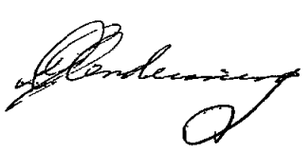
Above requirements must be inspected/supervised by an Accredited Supplier or Sydney Water to enable the issue of a satisfactory compliance letter

Permits are required to fill all new swimming pools with a capacity greater than 10,000 litres To arrange for a permit please contact Sydney Water on 13 20 92 during business hours Fines will apply for filling swimming pools without a permit

APPROVED BY

WSC Company Name BYRNE & ASSOCIATES PTY LTD

Name of Key Personnel D GLENDENNING

Signature of Key Personnel  Date 5 / 5 / 08

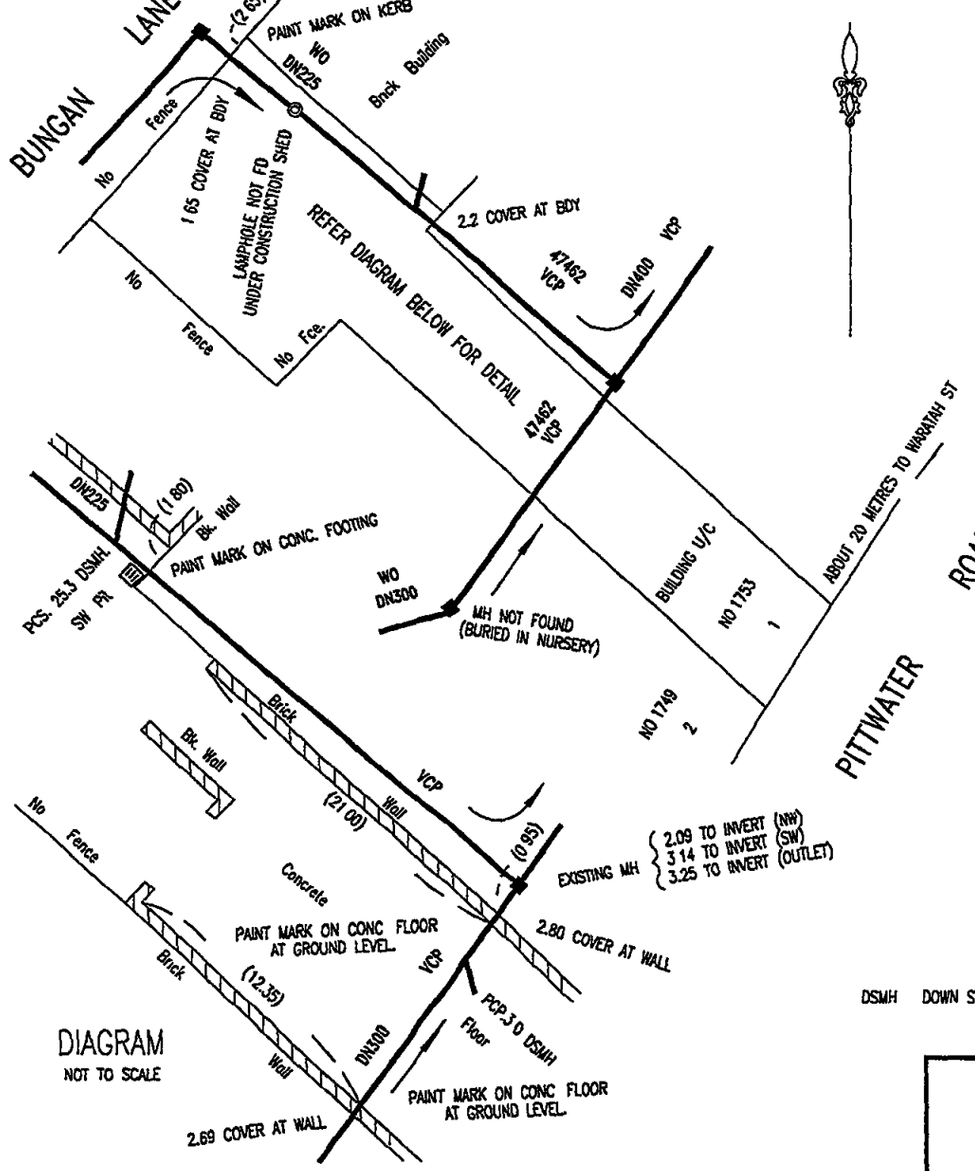
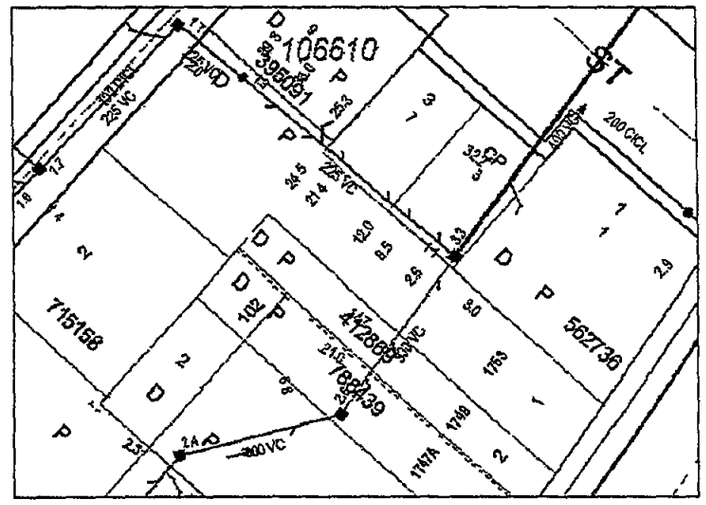


DIAGRAM
NOT TO SCALE



SYDNEY WATER HYDRA PLOT (N T S)

NOTES
1 SYDNEY WATER ASSET PROTECTION SURVEY AND PLAN PREPARED BY BYRNE & ASSOCIATES P/L, PO BOX 167 NARRABEEN NSW 2101 FOR MR. B.DELMEGE-DELMEGE CONSTRUCTIONS SUITE 504/LEVEL5 NO 90 MOUNT ST NORTH SYDNEY NSW 2060 PHONE. 9922-2999
2 DATE OF INSPECTION 10-4-08
3. STRATA. MOSTLY SOIL/SAND
4 TIES SHOWN ARE TO OCCUPATIONS ONLY UNLESS OTHERWISE INDICATED
5. BYRNE & ASSOCIATES KEY PERSONNEL. C. PATON K.TREMBATH.
6 SEWER LOCATION MARKS ARE NOT NECESSARILY ON BOUNDARY
7 DO NOT SCALE FROM THIS PLAN. USE DIMENSIONS ONLY
8. SYDNEY WATER WAE RECORDS HAVE BEEN USED TO ASSIST IN DETERMINING THE LOCATION & INVERT LEVEL OF THIS STRUCTURE.
9 ALL LEVELS SHOWN ARE ON AUSTRALIAN HEIGHT DATUM

DSMH DOWN STREAM MANHOLE

I CRAIG PATON OF BYRNE & ASSOCIATES PTY LTD BEING ACCREDITED TO CARRY OUT A SERVICE PROTECTION REPORT CERTIFY THAT THE INFORMATION SHOWN ON THE REPORT HAS BEEN PREPARED IN ACCORDANCE WITH THE RELEVANT INSTRUCTIONS AND ACCEPT FULL RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION ON THE REPORT

SYDNEY WATER ASSET PROTECTION REPORT AT NO 1753 MONA VALE MONA VALE

ISSUE	DESCRIPTION	DATE
A	ORIGINAL	10-4-08

ISSUES

BYRNE & ASSOCIATES PTY LIMITED
CONSULTING SURVEYORS & ENGINEERS
63 WATERLOO STREET
NARRABEEN 2101
Ph: (02) 9913 7110 Fax (02) 9913 1583
Email. wsc@byrneandassociates.com.au

Date of Survey	Prepared by	Date	Approved by	Date	R.L.
10-4-08	KT	10-4-08	CP	14-4-08	A.H.D.

File Name 30267swsgr.dwg | Sheet 1 of 1 Sheets | Plan No. A3 - 30267

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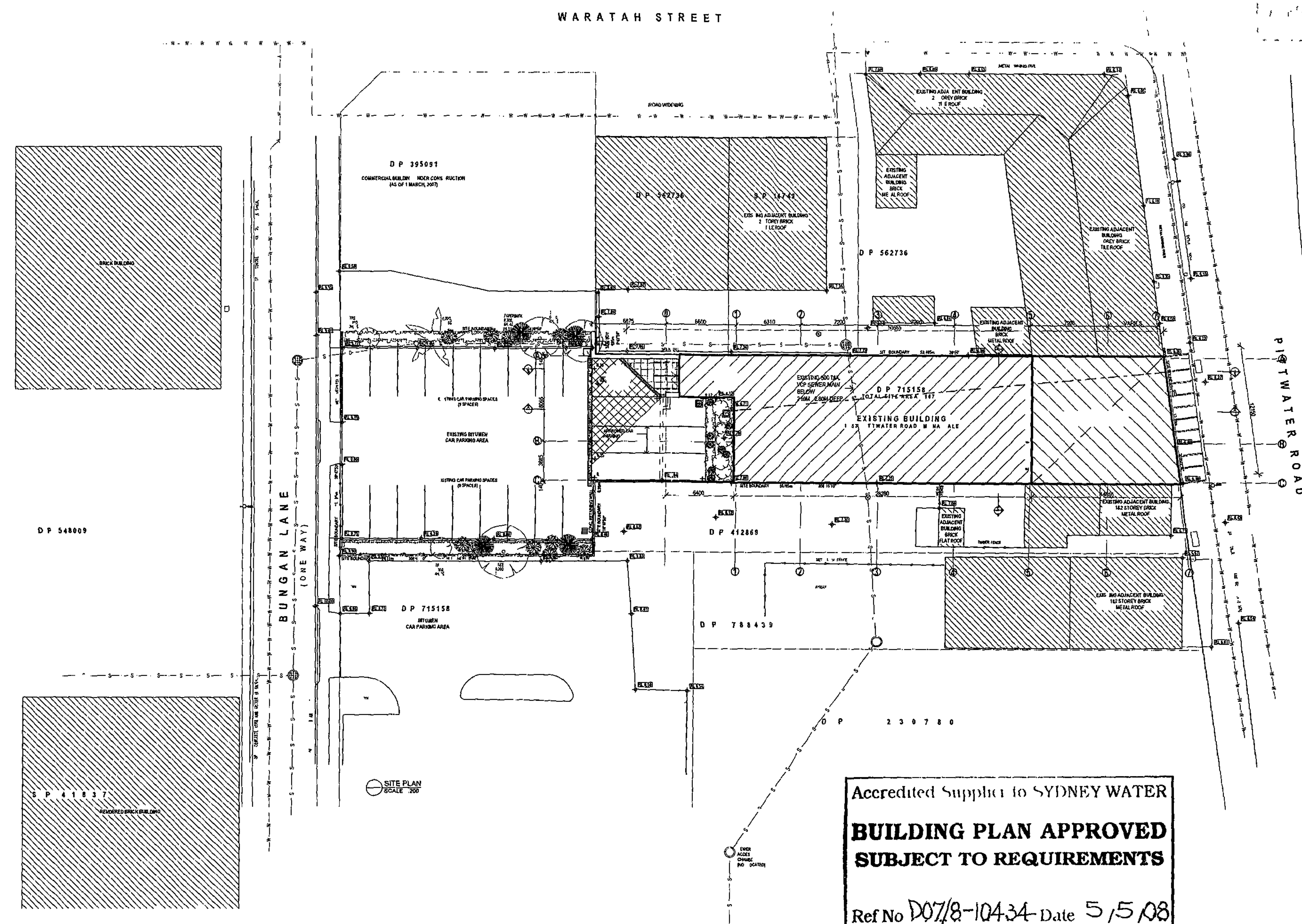

Accredited Supplier to SYDNEY WATER
BUILDING PLAN APPROVED
SUBJECT TO REQUIREMENTS
Ref No D07/8-10434 Date 5/5/08

AMENDMENTS

KETHEL (INVESTMENTS) PTY LTD 1792 PITTWATER ROAD BAYVIEW NSW 2104	MJL	823
ALTERATIONS TO EXISTING COMMERCIAL DEVELOPMENT 1753 PITTWATER ROAD MONA VALE NSW 2103	14/03/2008	
SITE PLAN		
CONSTRUCTION CERTIFICATE	1:200	003

www ddp com au

DREW DICKSON **ARCHITECTS**

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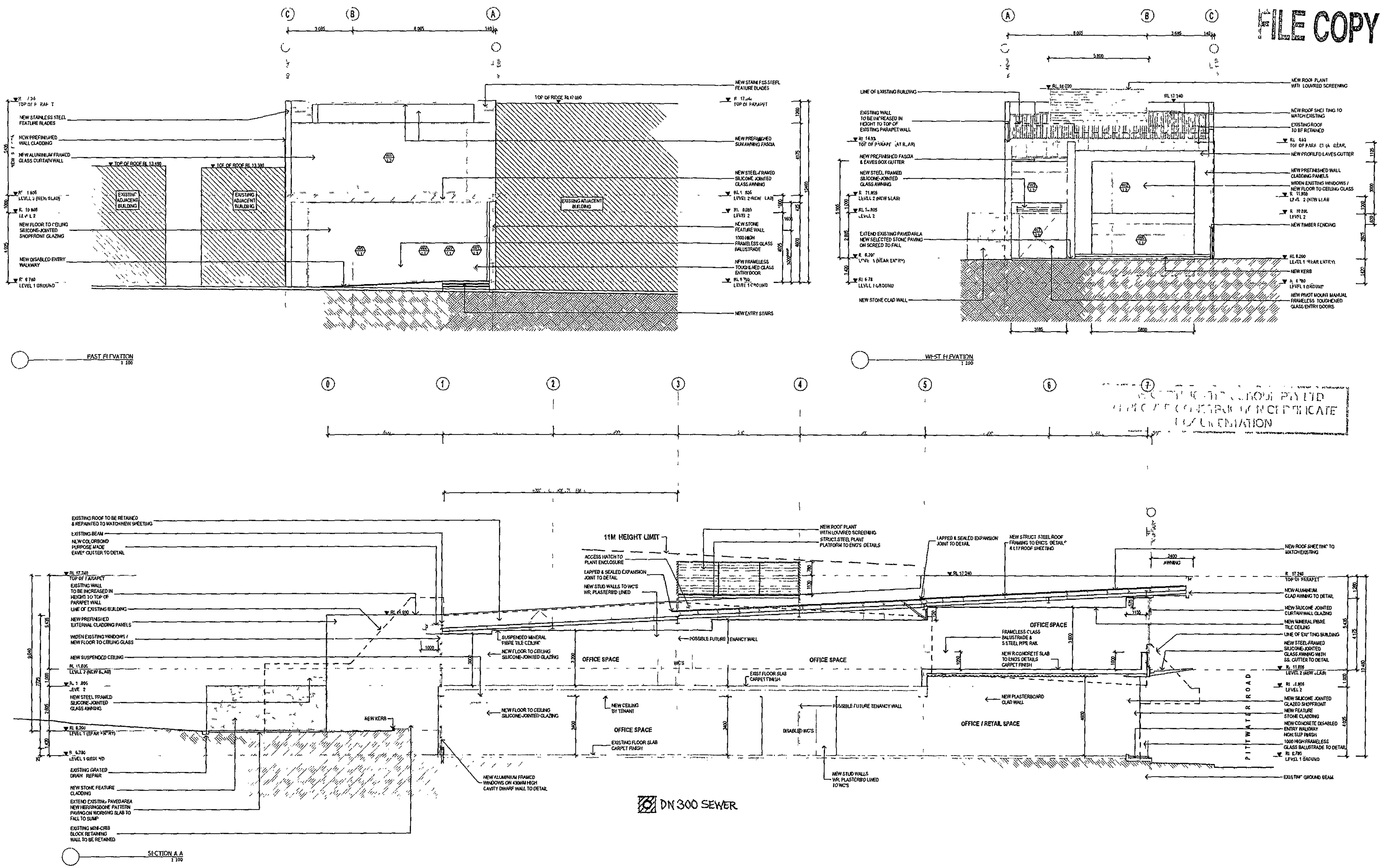


KETHEL (INVESTMENTS) PTY LTD
1792 PITTWATER ROAD BAYVIEW NSW 2104

ALTERATIONS TO EXISTING COMMERCIAL DEVELOPMENT
1753 PITTWATER ROAD MONA VALE NSW 2103

ELEVATIONS & SECTION

CONSTRUCTION CERTIFICATE

MJL 823
14/03/2008
1:100 201

AMENDMENTS

www ddp com au

DREW DICKSON **ARCHITECTS**

GENERAL NOTES

G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED.

G2 ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION AND FABRICATION IS COMMENCED

G3 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS

G4 ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE
ALL LEVELS ARE EXPRESSED IN METRES

G5 DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART SHALL BE OVER STRESSED UNDER CONSTRUCTION ACTIVITIES

G6 WORKMANSHIP AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RELEVANT CURRENT S A A CODES INCLUDING ALL AMENDMENTS AND THE LOCAL STATUTORY AUTHORITIES EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS

G7 THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE ENGINEER BUT IS NOT AN AUTHORISATION FOR A VARIATION.
ANY VARIATIONS INVOLVED MUST BE TAKEN UP WITH THE ARCHITECT OR PROJECT MANAGER BEFORE THE WORK COMMENCES.

G8 ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE ENGINEER FOR A DECISION BEFORE PROCEEDING WITH THE WORK

G9 THE BUILDER SHALL GIVE 48 HOURS NOTICE FOR ALL ENGINEERING INSPECTIONS

G10 BUILDING FROM THESE DRAWINGS IS NOT TO COMMENCE UNTIL APPROVED BY THE LOCAL AUTHORITIES

G11 THE WORD 'ENGINEER USED IN THESE NOTES REFER TO AN EMPLOYEE OR NOMINATED REPRESENTATIVE OF
ACOR CONSULTANTS PTY.LTD

G12 THE STRUCTURAL WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED FOR THE FOLLOWING SUPERIMPOSED LOADS

WIND LOADS IN ACCORDANCE WITH AS1170 PART 2 2002		
STRUCTURAL IMPORTANCE MULTIPLIER	1.0	
TERRAIN CATEGORY	3	
REGIONAL WIND SPEED		
REGION A V 35	38	m/s
V 1000	46	m/
LIVE LOADS		
ROOF NON TRAFFICABLE	0.25	kP
FLOOR AREAS		
UNLESS NOTED OTHERWISE	3	kP
STAIRS AND CORRIDORS	3	kP

FOUNDATIONS

F1 FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING INTENSITY OF 200 kP

IF A GEOTECHNICAL INVESTIGATION HAS NOT BEEN MADE THE FOUNDATION CONDITIONS AND REACTIVITY CLASS ARE AN ASSUMPTION AND MUST BE CONFIRMED BY TRIAL EXCAVATIONS BY THE BUILDER

FOUNDATION MATERIAL SHALL BE APPROVED FOR THIS BEARING PRESSURE BEFORE PLACING MEMBRANE REINFORCEMENT OR CONCRETE

F2 RESIDENTIAL SLABS AND FOOTINGS HAVE BEEN DESIGNED FOR A REACTIVITY CLASS S TO AS2870

F3 BEARING MATERIAL AT BASES OF PIERS TO BE CONFIRMED BY AN EXPERIENCED GEOTECHNICAL ENGINEER OR ENGINEERING GEOLOGIST

F4 EXCAVATION NEAR FOOTINGS SHALL NOT EXTEND BELOW FOUNDATION LEVEL WITHOUT THE ENGINEERS APPROVAL

F5 ALL FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALL" AND COLUMNS UNLESS NOTED OTHERWISE

F6 DO NOT BACKFILL RETAINING WALLS (OTHER THAN CANTILEVER WALLS) UNTIL FLOOR CONSTRUCTION AT TOP AND BOTTOM IS COMPLETED

F7 THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ANY EXCAVATION IN A STABLE CONDITION WITHOUT ADVERSELY AFFECTING SURROUNDING PROPERTY INCLUDING SERVICES
THIS INCLUDES OBTAINING ALL NECESSARY APPROVALS FOR SHORING AND ANCHOR SYSTEMS

F8 ANY OVER EXCAVATION SHALL BE BACKFILLED WITH CONCRETE GRADE N15

F9 FOUNDATIONS ADJACENT TO SERVICES ETC SHALL BE EXTENDED DOWN SUCH THAT THE INFLUENCE LINE OF THE FOUNDATION IS BELOW THE ADJACENT SERVICE

BRICKWORK NOTES

B1 ALL WORKMANSHIP AND MATERIAL SHALL COMPLY WITH AS 3700 AND THE SPECIFICATIONS

B2 BUILD ALL LOAD BEARING WALLS BEFORE SUPPORTED MEMBERS ARE POURED
PROVIDE 75mm MINIMUM BEARING FOR SLABS AND 230 MM MINIMUM FOR BEAMS UNLESS NOTED OTHERWISE

B3 ONLY ENGINEER APPROVED MASONRY ANCHORS TO BE USED ANCHOR DIAMETER SHOWN REFERS TO STUD THREAD DIAMETER
ANCHOR ONLY INTO SOLID BRICKS

B4 CUTTING AND CHASING OF BRICKWORK IS NOT PERMITTED WITHOUT PRIOR APPROVAL FROM THE ENGINEER

B5 NO BRICKWORK TO BE BUILT ON PROPPED SLABS

B6 OBTAIN ENGINEERS APPROVAL BEFORE COMMENCING BRICKWORK ON SUSPENDED SLABS

B7 MINIMUM CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF BRICKS SHALL BE 20 MPa (F c 20 MPa)

B8 MORTAR TYPE SHALL BE 1 1 6 FOR M3 (NORMAL) & 1 0 5 4 5 FOR M4 MORTAR (EXPOSURE GRADE) UNLESS NOTED OTHERWISE

B9 ALL BRICK WALLS ON SLABS WITH NO WALLS UNDER REINFORCE WITH 2 R6 RODS PER LEAF ONE COURSE ABOVE SLAB
(HOT DIP GALVANISED TO EXTERNAL LEAF OF CAVITY WALL)

B10 WHERE MASONRY ABUTS STEEL OR CONCRETE STRUCTURES THEY SHALL BE RESTRAINED USING 32 MM X 1 2 MM THICK GALVANISED STEEL STRAPS 300 MM LONG
POWER FIX TO COLUMNS AT EVERY :-
5TH COURSE STANDARD METRIC BRICK
4TH COURSE MODULAR METRIC BRICKS 90 MM HIGH METRIC BLOCKS
2ND COURSE 200 MM HIGH METRIC BLOCKS

B11 BRICK TIES TO BE AT VERTICAL CENTRES AS PER NOTE B10 HORIZONTAL CENTRES OF TIES NOT TO EXCEED 600 MM

B12 ALL ENGAGED BRICK PIERS TO BE 110 X 230 UNLESS NOTED OTHERWISE

B13 ALL BRICKWORK IN STRAIGHT SECTIONS AND CORNERS TO BE FULLY BONDED EVEN WHEN DIFFERENT BRICK STRENGTHS ARE NOMINATED

B14 PLACE 2 LAYERS OF GALVANISED FLAT STEEL WITH GRAPHITE GREASE BETWEEN LOAD BEARING MASONRY AND CONCRETE SLABS
ENSURE TOP SURFACE OF MASONRY IS SMOOTH

B15 LINTEL NOT SHOWN ON DRAWINGS TO BE AS PER STANDARD PRACTICE
ALL LINTELS TO EXTERNAL LEAF TO BE HOT DIP GALVANISED

B16 PLACE BRICK TIES TO ALL BRICKWORK AT 4 COURSE CENTRES (AND ONE COURSE OVER OPENINGS)

B17 ALL INTERNAL LEAVES OF EXTERNAL LOAD BEARING CAVITY WALLS TO BE TIED TO THE UNDERSIDE OF SLAB/STEELWORK WITH M.E.T 4 3 TIES OR EQUIVALENT AT 2000 CENTRES

VERTICAL JOINTS

B18 PROVIDE VERTICAL JOINTS IN BRICKWORK AT THE FOLLOWING MAXIMUM SPACINGS

	WALLS GENERALLY	PARAPETS
FIRST JOINT FROM CORNER	5M	4M
GENERAL SPACING	12M	9M

JOINT LOCATIONS TO BE CO ORDINATED WITH ARCHITECTURAL DRAWINGS

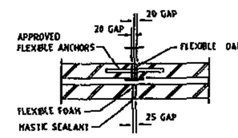
B19 IN BUILDINGS WITH COLUMNS LOCATE JOINTS AT COLUMNS & TIE BRICKWORK TO COLUMNS WITH APPROVED FLEXIBLE ANCHORS

B20 WHERE LOCATION OF JOINTS ABOVE RAISES DOUBT ABOUT STABILITY OF A WALL REFER TO ENGINEER

B21 WIDTH OF VERTICAL JOINTS TO BE 25 KEEP CLEAR OF MORTAR & DEBRIS

B22 FILL JOINTS WITH FLEXIBLE FOAM SLIGHTLY OVERSIZED DO NOT USE BITUMEN IMPREGNATED FIBREBOARD

B23 SEAL JOINTS WITH APPROVED MASTIC SEALANT RECESSED 25mm FROM FACE OF WALL



HORIZONTAL JOINTS

B24 PROVIDE HORIZONTAL JOINTS AS SHOWN ON DRAWINGS

B25 WHERE BRICKWORK IS NON LOAD BEARING PROVIDE 10 m GAP BETWEEN TOP OF WALL & UNDERSIDE OF SLAB & FILL WITH FLEXIBLE FOAM

CONCRETE NOTES

C1 ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH AS 3600 CURRENT EDITIONS WITH AMENDMENTS AND THE ACSE CONCRETE SPECIFICATION EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS

C2 CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS:

ELEMENT	COMPRESSIVE STRENGTH F c 28 DAYS MPa	SLUMP mm	MAX AGG SIZE mm
FOOTINGS	25	80	20
COLUMNS	40	80	20
SLABS ON GRD	25	80	20
SUSP SLABS	40	80	20

C3 CEMENT TO BE TYPE SL TO AS 3972 UNLESS NOTED OTHERWISE THIS IS A MODIFIED TYPE GP CEMENT SEE ACSE CONCRETE SPECIFICATION

C4 NO BRECCIA TYPE AGGREGATE IS TO BE USED

C5 NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING

C6 A VIBRATOR IS TO BE USED FOR THE COMPACTION OF ALL CONCRETE

C7 BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS

C8 SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES

C9 NO HOLES CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER

C10 CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND USE ONLY WHERE SHOWN OR SPECIFICALLY APPROVED BY THE ENGINEER

C11 COVER TO REINFORCEMENT FOR CORROSION PROTECTION SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE COVER TO DOMESTIC FOOTINGS SHALL COMPLY WITH

SURFACES IN CONTACT WITH GROUND		COVER
WITHOUT MEMBRANE		50mm
WITH MEMBRANE	SLABS	30mm
	FOOTINGS	50mm
SURFACES ABOVE GROUND	INTERIOR	20mm
SURFACES ABOVE GROUND	EXTERIOR	30mm

COVER SHALL NOT BE LESS THAN THE SIZE OF THE AGGREGATE OR THE MAIN BARS

C12 CONDUITS PIPES AND THE LIKE SHALL NOT BE PLACED WITHIN THE CONCRETE COVER

C13 CURE ALL CONCRETE USING AN APPROVED METHOD IN ACCORDANCE WITH ACSE SPECIFICATION CURING COMPOUNDS TO COMPLY WITH AS 3799 PVA BASED CURING COMPOUNDS ARE NOT ACCEPTABLE

C14 ALIPHATIC ALCOHOL:
WHEN SHADE TEMPERATURE EXCEEDS 35 C SPRAY THE EXPOSED SURFACE OF CONCRETE SLAB DURING THE PLACING AND FINISHING OPERATION WITH A FINE FILM OF APPROVED ALIPHATIC ALCOHOL
REPEAT THE SPRAY IF THE SPRAYED SURFACE HAS BEEN RE WORKED

C15 ENSURE ADEQUATE SUPPLY OF ALIPHATIC ALCOHOL ON SITE BEFORE COMMENCING CONCRETE WORK

C16 ALL CONCRETE SLABS AND BEAMS TO BE PROPORTIONED TO LIMIT DRYING SHRINKAGE TO 500 MICROSTRAIN AT 56 DAYS

C17 ALL CONCRETE COLUMNS GREATER THAN 12 METRES IN HEIGHT SHALL BE POURED A MINIMUM OF 4 HOURS PRIOR TO SLAB OR BEAM OVER

C18 DRIP GROOVES ARE TO BE PROVIDED AT ALL EXPOSED EDGES COVER TO REINFORCEMENT TO COMPLY WITH C11 ABOVE

C19 CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER

C20 BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS
BEAM NUMBERING SYSTEM
2 B10
— CONCRETE BEAM UNDER
— FLOOR NUMBER
WALL NUMBERING SYSTEM
W10 (250)
— WALL THICKNESS (IF SHOWN ON PLAN)
— WALL NUMBER

C21 TOP MESH FOR SLAB REINFORCEMENT TO BE CONTINUOUS OVER SLAB SUPPORTS

STRUCTURAL STEELWORK

S1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH STEEL STRUCTURE AS 4100 AND WELDING AS 1554 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENT

S2 STEEL COMPONENTS SHALL CONFORM TO THE FOLLOWING TABLE U.N.O

COMPONENT	AUS STAND	GRADE
PLATE	3678	250
HOT ROLLED SECTIONS	3679	300
CHS 80 mm DIA	1163	C350
CHS 80 mm DIA	1163	C250
RHS & SHS	1163	C350
PURLINS & GIRTS	1397	450
WELDED BEAMS & COLUMNS	3679	300
FLAT BARS & RODS	3679	250

S3 BOLT DESIGNATION

ALL BOLTS TO BE 8 8/S UNLESS NOTED OTHERWISE

- 4 6/S COMMERCIAL BOLTS OF GRADE 4.6 TO AS 1111 SNUG TIGHTENED
- 8.8/S HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 SNUG TIGHTENED
- 8.8/TB HIGH STRENGTH BOLTS OF GRADE 8 8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS A BEARING JOINT
- 8.8/TF HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS A FRICTION JOINT WITH CONTACT SURFACES LEFT UNCOATED

S4 ALL BOLTS SHALL BE M20 GRADE 8 8/S U.N.O
ALL STUDS SHALL BE M20 GRADE 4 6/S U.N.O
NO STEEL TO STEEL CONNECTION TO HAVE LESS THAN 2 BOLTS

S5 ALL PLATES TO BE 10 mm THICK U.N.O

S6 ALL WELDS TO BE 6 mm CONTINUOUS FILLET WELDS U.N.O

ELEMENT	WELD CATEGORY
ALL	S P

ALL BUTT WELDS TO BE COMPLETE PENETRATION BUTT WELDS ELECTRODES TO BE E48XX U.N.O
WELD CATEGORY AS TABULATED ABOVE

S7 THE CONTRACTOR SHALL MAKE THE NECESSARY ALLOWANCES FOR COORDINATING ALL ARCHITECTURAL & STRUCTURAL ELEMENTS IN THE PREPARATION OF STRUCTURAL STEELWORK SHOP DRAWINGS & SUBSEQUENT FABRICATION & ERECTION CONNECTION DETAILS SHOWN ON STRUCTURAL DRAWINGS ARE TYPICAL ONLY WHERE A DETAIL IS NOT SHOWN THE FABRICATOR / SHOP DETAILER SHALL PREPARE DETAILS IN ACCORDANCE WITH AS4100 & THE AISC PUBLICATIONS 'DESIGN OF STRUCTURAL CONNECTIONS & 'STANDARDISED STRUCTURAL CONNECTIONS THESE DETAILS SHALL TAKE DUE ACCOUNT OF ARCHITECTURAL & SERVICE REQUIREMENTS & SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL THE ENGINEER WILL SUPPLY LOADS AS REQUIRED ALL COSTS & TIME IMPLICATIONS ASSOCIATED WITH THESE WORKS ARE TO BE ALLOWED FOR BY THE CONTRACTOR

S8 STRUCTURAL STEELWORK SHALL HAVE THE FOLLOWING TREATMENT:

ELEMENT	SURFACE PREPARATION	PROTECTIVE COATING
INTERIOR MEMBERS	BLAST CLEAN TO CLASS 2 (AS 1627)	ZINC PHOSPHATE PRIMER FILM THICKNESS 0 075mm
EXPOSED TO WEATHER INCLUDING ALL STIFFENERS	PICKLE (AS 1627 PART 5)	HOT DIP GALVANISED REFER TO SPECIFICATIONS

S9 ALL STRUCTURAL STEEL WORK WHICH IS EXPOSED AND STEEL WORK IN CONTACT WITH EXTERNAL CAVITY BRICKWORK & ALL LINTELS SHALL BE HOT DIP GALVANISED OR STAINLESS STEEL REFER TO DRAWINGS GALVANISING OF STRUCTURAL SECTIONS SHALL BE IN ACCORDANCE WITH AS 4680 AND THE GALVANISING OF THREADED FASTENERS SHALL BE IN ACCORDANCE WITH AS 1214

S10 AFTER FABRICATION ALL EXPOSED STEELWORK AND STEELWORK BUILT IN EXTERNAL WALLS INCLUDING FITMENTS NUTS BOLTS WASHERS AND HOLDING DOWN BOLTS TO BE HOT DIP GALVANISED

S11 ANY FURTHER WELDED JOINTS ARE TO BE PAINTED WITH 2 COATS OF APPROVED GALVANISED PAINT

S12 THE ENDS OF ALL TUBULAR MEMBERS ARE TO BE SEALED WITH NOMINAL THICKNESS PLATES AND CONTINUOUS FILLET WELD UNLESS OTHERWISE SHOWN ON THE DRAWINGS

S13 THE SUB-CONTRACTOR SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR ALL ATTACHMENTS WHETHER OR NOT DETAILED ON THE DRAWINGS

S14 PROVIDE HOOK BOLTS TO PURLINS ADJACENT TO BRACING MID POINTS TO CONTROL BRACE SAG

S15 ALL STEELWORK IS TO BE TEMPORARILY BUT SECURELY BRACED UNTIL ALL FINAL BRACING CLADDING & STABILISING BRICK OR BLOCKWORK HAVE BEEN COMPLETED

S16 GRAVITY &/OR GAUGE LINES TO INTERSECT U N O

S17 CONCRETE ENCASED STEELWORK TO BE WRAPPED WITH F41 MESH & TO HAVE 50mm MIN COVER OF CONCRETE GRADE 25 TO AS3600

S18 SHOP DRAWINGS SHALL BE PREPARED BY THE FABRICATOR FOR ALL STRUCTURAL STEELWORK SUBMIT COPIES OF ALL WORKSHOP DRAWINGS TO **ACOR CONSULTANTS** FOR STUCTURAL APPROVAL AT LEAST 14 DAYS PRIOR TO FABRICATION DO NOT FABRICATE STEELWORK UNTIL WORKSHOP DRAWINGS ARE APPROVED

STRUCTURAL STEELWORK CONT

PURLINS AND GIRTS

S19 ALL PURLINS AND GIRTS TO BE COLD FORMED LIGHT GAUGE STEEL SECTIONS CONFORMING TO ANZ4600 FOR DESIGN AND TO AS1397 FOR MATERIAL PROPERTIES

S20 THE OVERALL DIMENSIONS OF PURLINS AND GIRTS SHALL NOT BE LESS THAN THE NOMINAL SIZE GIVEN, BOTH FLANGES SHALL BE LIPPED

S21 THE OVERALL DIMENSIONS OF PURLINS AND GIRTS SHALL NOT BE LESS THAN THE NOMINAL SIZE GIVEN BOTH FLANGES SHALL BE LIPPED

S22 LOCATION OF PURLINS & GIRTS TO BE OBTAINED FROM ARCHITECT S DRAWINGS OR ROOFING CONTRACTOR

S23 PROVIDE TRIMMER PURLINS BETWEEN MAIN PURLINS TO SUIT ROOF PROFILE (HIPS VALLEYS RIDGE LINES ETC) AND CONNECT WITH PROPRIETORY CLEATS AS RECOMMENDED BY MANUFACTURER

CONCRETE CONT'

TYPICAL OPENINGS IN SLABS

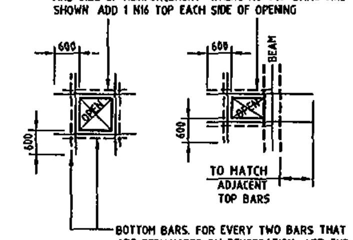
C22 FOR OPENINGS LESS THAN 300 x 300 m BARS TO BE RE-ARRANGED AROUND HOLE

C23 FOR PENETRATIONS GREATER THAN 300 x 300m BUT LESS THAN 1000mm 1000mm USE DETAILS BELOW

C24 FOR PENETRATIONS GREATER THAN 1000 1000mm REFER TO ENGINEER S PLANS WHERE OPENINGS ARE NOT DETAILED CONTACT ENGINEER IMMEDIATELY

C25 LOCATION OF OPENINGS TO BE TO THE APPROVAL OF THE STRUCTURAL ENGINEER

TOP BARS. FOR EVERY TWO BARS THAT ARE TERMINATED BY OPENINGS ADD ONE BAR EACH SIDE USING SAME GRADE AND SIZE OF REINFORCEMENT WHERE NO TOP BARS ARE SHOWN ADD 1 N16 TOP EACH SIDE OF OPENING



BOTTOM BARS. FOR EVERY TWO BARS THAT ARE TERMINATED BY PENETRATION ADD ONE BAR EACH SIDE USING SAME GRADE AND SIZE OF REINFORCEMENT

PIPE PENETRATION THROUGH BEAM

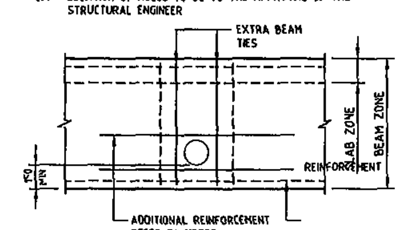
C26 MINIMUM DISTANCE FROM BEAM SOFFIT TO PIPE SOFFIT TO BE 150mm

C27 FOR PIPES UP TO Ø90 ADD ONE ROW OF TIES EACH SIDE OF PIPE

C28 FOR PIPES Ø91 TO Ø150 ADD TWO ROWS OF TIES EACH SIDE OF PIPE AND 1 N16 HORIZONTAL BAR 1200 LONG TOP AND BOTTOM OF PIPE AT EVERY VERTICAL TIE LEG

C29 FOR HOLES GREATER THAN Ø150 REFER TO ENGINEER S DETAILS WHERE PENETRATIONS ARE NOT DETAILED CONTACT STRUCTURAL ENGINEER IMMEDIATELY

C30 LOCATION OF HOLES TO BE TO THE APPROVAL OF THE STRUCTURAL ENGINEER



SLABS ON GROUND

SG1 THESE SLABS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS 2870 1996 RESIDENTIAL SLABS & FOOTINGS PARTICULAR ATTENTION IS DRAWN TO CLAUSE 1 3 & APPENDIX C WHICH REFER TO THE PROBABILITIES OF THE VARIOUS CATEGORIES OF DAMAGE OCCURING

SG2 THE BUILDER SHALL ENSURE THAT ALL CONSTRUCTION IS CARRIED OUT STRICTLY IN ACCORDANCE WITH THE PROVISIONS OF THIS CODE PARTICULAR ATTENTION IS DRAWN TO SECTION 6 OF THE CODE

SG3 TERMITE PROTECTION SHALL BE INSTALLED IN ACCORDANCE WITH AS 3660 1 1995 & OTHER RELEVANT AUSTRALIAN STANDARDS & LOCAL AUTHORITY REQUIREMENTS

SG4 THE BUILDER SHALL COMPLETELY SEAL BY GROUTING ANY CRACKS THAT MAY DEVELOP IN THE SLAB GREATER THAN OR EQUAL TO 1 m IN WIDTH BEFORE APPLYING ANY FINISHES

REINFORCEMENT

R1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 2001 AND OTHER RELEVANT AUSTRALIAN CODES

R2 REINFORCEMENT TYPE AND GRADE

SYMBOL	TYPE	AUS STAND	GRADE
N	NORMAL DUCTILITY	4671	500
L	LOW DUCTILITY	4671	500
E	SEISPIC (EARTHQUAKE) DUCTILITY	4671	500
R	PLAIN (ROUND)	4671	250
SL	SQAURE MESH	4671	500
RL	RECTANGULAR MESH	4671	500
TM	TRENCH MESH	4671	500

R3 ALL REINFORCEMENT TO CONFORM TO AS1302 CURRENT EDITIONS WITH AMENDMENTS

REINFORCEMENT SYMBOLS

N DENOTES 500N GRADE DEFORMED BAR
S DENOTES 250S GRADE DEFORMED BAR
R DENOTES 250R GRADE ROUND BAR

THE NUMBER FOLLOWING THESE SYMBOLS IS THE BAR DIAMETER IN mm

R4 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN TRUE PROJECTION.

R5 WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER

R6 ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING BY APPROVED BAR CHAIRS SPACERS OR SUPPORT BARS

R7 SITE BENDING OF N BARS SHALL BE DONE COLD WITH POWER OR MECHANICAL BENDING TOOLS. NOTE IF N BARS ARE HEATED ABOVE 450 C (LESS THAN RED HEAT) THEY LOSE STRENGTH.

REINFORCEMENT LAPS

R8 LAP TOP BARS MIDSPAN LAP BOTTOM BARS AT SUPPORTS LAPS IN SLAB REINFORCEMENT (U.N.O.) ON PLAN OR DETAILS TO BE AS SHOWN BELOW

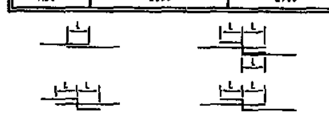
MINIMUM LAPS

BAR SIZE	L (CONCRETE DEPTH 300)	L (CONCRETE DEPTH 300)
N12	300	400
N16	400	500
N20	500	600
N24	600	800
N28	800	1000
N32	1000	1250
N36	1200	1500

WHERE LAPS OCCUR AWAY FROM MIDSPAN (TOP STEEL) OR SUPPORTS (BOTTOM STEEL) USE FULL MOMENT LAPS AS SHOWN BELOW SUBJECT TO APPROVAL STOCK BAR LENGTHS AND FULL MOMENT LAPS MAY BE USED IN SLABS

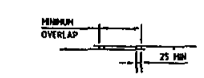
FULL MOMENT LAPS

BAR SIZE	L (CONCRETE DEPTH 300)	L (CONCRETE DEPTH 300)
N12	400	500
N16	600	800
N20	800	1000
N24	1100	1300
N28	1500	1800
N32	2000	2300
N36	2550	2900

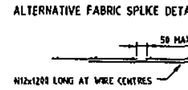


R9 FABRIC TO CONFORM TO AS1304

R10 FABRIC LAPS



ALTERNATIVE FABRIC SPLICE DETAIL



R11 FABRIC TO EXTEND 70 WITH A CROSSWIRE ONTO WALLS U.N.O
REFER TO BRICKWORK NOTES

R12 A MAXIMUM OF THREE SHEETS OF FABRIC SHALL BE LAPPED AT ANY POINT

This plan/specification is to be read in conjunction with the Approved Documentation of
Cert ... Date
---537/08 21-10-08
DIX GARDNER PTY LTD

Issue	Description	Date	Drawn	Chkd
A	ISSUED FOR CC	27 02 08	JPT	AH

North

Client: **DELMEGE CONSTRUCTIONS**
SUITE 501 LEVEL 5
90 MOUNT STREET
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Architect: **DREW DICKSON ARCHITECTS**
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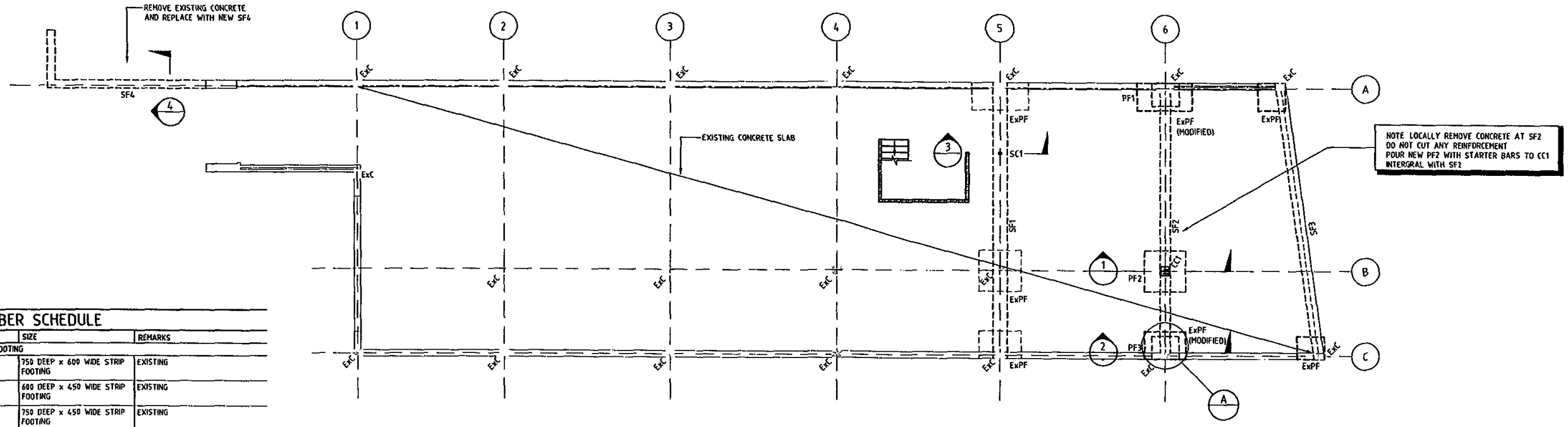
Project: **ALTERATIONS & ADDITIONS**
1753 PITTWATER ROAD
MONA VALE

Drawing Title: **STRUCTURAL NOTES**

Drawn	Date	Scale A1	Q.A. Check	Date
JPT	FEB 08	NOTED		

Checked	Project No	Dwg No	Issue
AH	SY08 0070	S1 00	A



MEMBER SCHEDULE

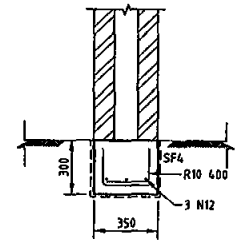
TYPE	SIZE	REMARKS
STRIP FOOTING		
SF1	750 DEEP x 600 WIDE STRIP FOOTING	EXISTING
SF2	600 DEEP x 450 WIDE STRIP FOOTING	EXISTING
SF3	750 DEEP x 450 WIDE STRIP FOOTING	EXISTING
SF4	300 DEEP x 350 WIDE STRIP FOOTING	
COLUMNS		
CC1	400x400	4N20 N12 300 CLOSED TIES
SC1	89x5 SHS	
PAD FOOTING		
PF1	600 (DEEP)x2400X1200	N16 200 BOTTOM EACH WAY
PF2 (NEW)	600 (DEEP)x1800X1800	N16 200 BOTTOM EACH POURED UNDER SF2
PF3	600 (DEEP) 1800X1200	N16 200 BOTTOM EACH WAY

GROUND FLOOR LEVEL PLAN

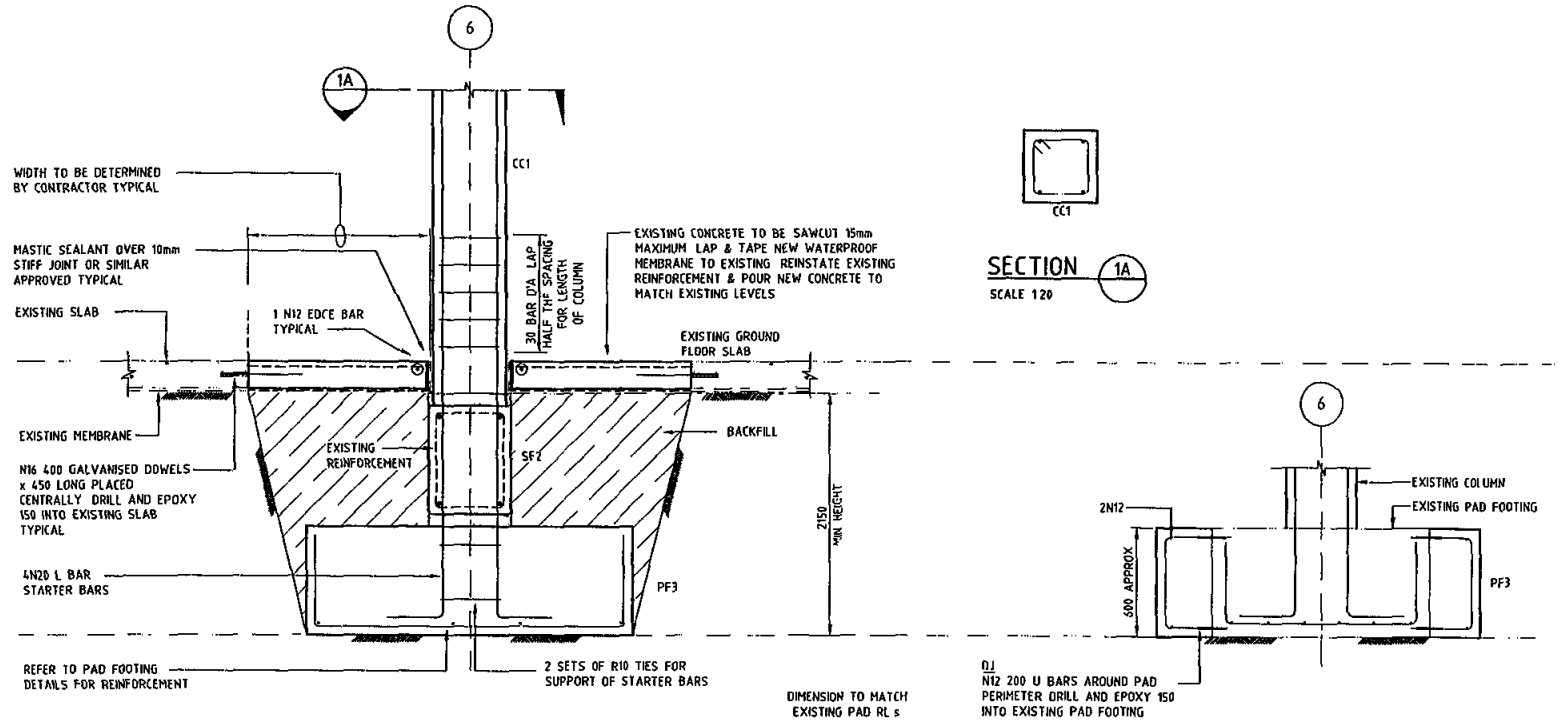
SCALE 1:100

ExC DENOTES EXISTING CONCRETE COLUMN

ExPF DENOTES EXISTING PAD FOOTING



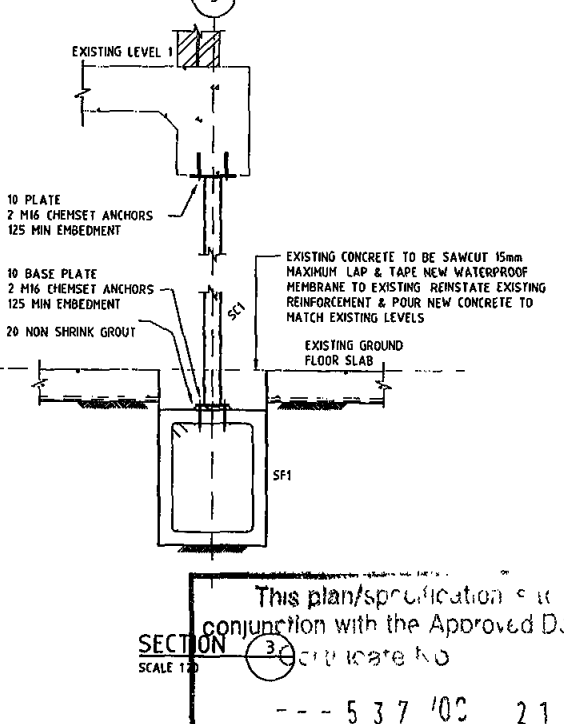
SECTION 4
SCALE 1:20



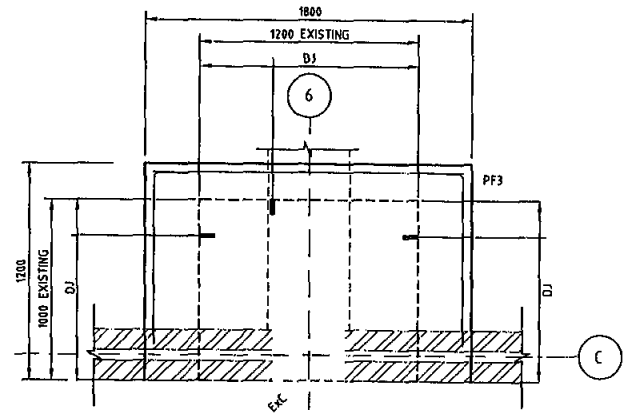
SECTION 1
SCALE 1:20

SECTION 1A
SCALE 1:20

SECTION 2
SCALE 1:20



SECTION 3
SCALE 1:20



DETAIL A
SCALE 1:20

PF3 PAD FOOTING DETAIL

NOTE PF1 SIMILAR

This plan/specification is to be read in conjunction with the Approved Documentation of Certificate No [illegible] Date

--- 537 '08 21-10-08

DIX GARDNER PTY LTD

C	ISSUED FOR CC AND CONSTRUCTION	27 02 08	JPT	AH
B	ISSUED FOR REVIEW	2? 02 08	JPT	AH
A	ISSUED FOR INFORMATION	15 02 08	JPT	AH
Issue	De cription	D te	Draw	Chkd

North

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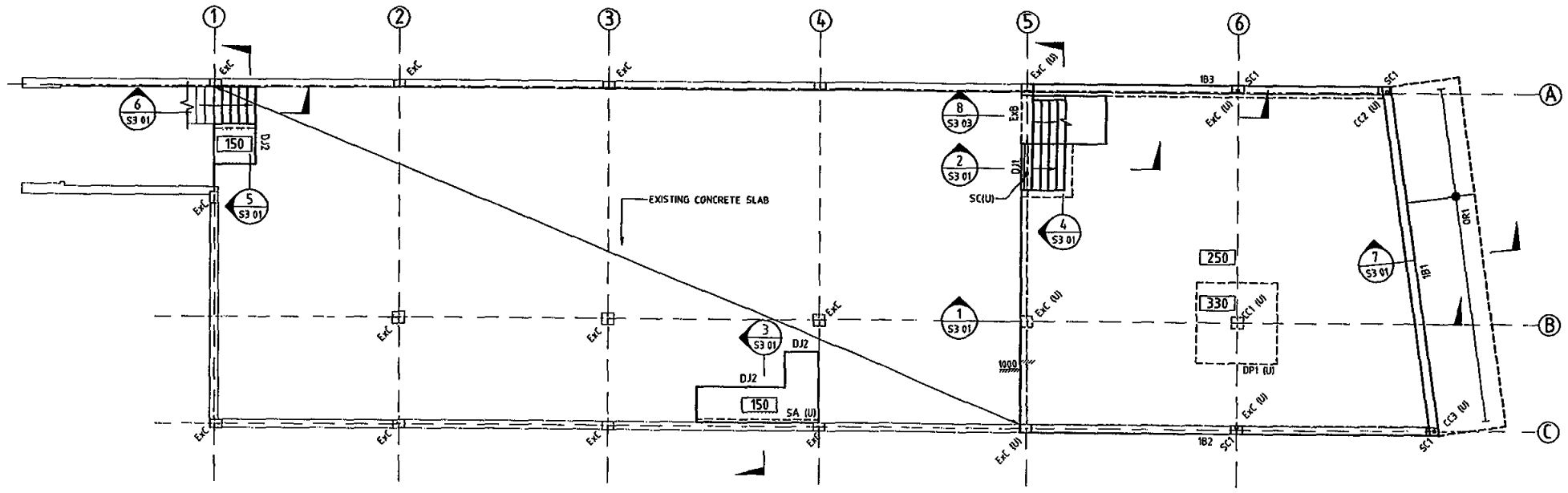
Project
ALTERATIONS & ADDITIONS
1753 PITTWATER ROAD
MONA VALE

Drawing Title
GROUND FLOOR SLAB PLAN

Drawn	Date	Scale A1	O.A. Check	Dat
JPT	FEB 08	NOTED		
Checked	Project N.	Dwg N	Iss	
AH	SY08 0070	S2 00	C	



LEVEL 1 SLAB PLAN
SCALE 1:100

FOR DETAILS OF CONCRETE LEVELS
REFER TO ARCHITECTS DETAILS

ExC DENOTES EXISTING CONCRETE COLUMN

ExB DENOTES EXISTING BEAM

250 DENOTES 250 THICK SLAB
REINFORCEMENT SHOWN ON PLAN AND SECTIONS

150 DENOTES 150 THICK INFILL SLAB
SL82 TOP UNLESS OTHERWISE NOTED

330 DENOTES 330 DP1 SLAB THICKNESS

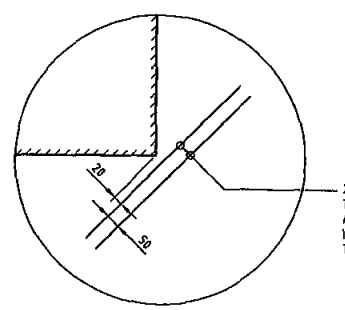
DENOTES INFILL SLAB

DJ1 N16 300 GALVANIZED DOWELS x 450 LONG
PLACED CENTRALLY DRILL AND EXPOXY 150
INTO EXISTING SLAB TYPICAL

DJ2 N12 200 DOWELS x 450 LONG PLACED
CENTRALLY DRILL AND EPOXY 150 INTO
EXISTING SLAB TYPICAL

MEMBER SCHEDULE

TYPE	SIZE	REMARKS
UPTURNED BEAM		
1B1	1150 (DEEP)X300 WIDE	
1B2	600 (DEEP)X280 WIDE	REFER TO S3 03 FOR ELEVATION
1B3	600 (DEEP)X400 WIDE	REFER TO S3 03 FOR ELEVATION
DROP PAD FOOTING		
DP1	330 (DEEP)x2800X2800	
STEEL WORK		
SC1	89x5 SHS	
SA	100 x 6 EA	
OUTRIGGERS		
OR1	230 BT 37	AT 1200 CTS TAPERED TO ARCHITECTS DETAIL



TYPICAL SLAB RE-ENTRANT CORNER DETAIL
SCALE 1:20

NOT FOR CONSTRUCTION

Iss	Description	Date	Drn	Chkd
2	ISSUED FOR REVIEW	30 03 08	JPT	AH
1	ISSUED FOR CONSTRUCTION	06 03 08	JPT	AH
C	ISSUED FOR CC	27 02 08	JPT	AH
B	ISSUED FOR REVIEW	25 02 08	JPT	AH
A	ISSUED FOR INFORMATION	18 02 08	JPT	AH

Project North

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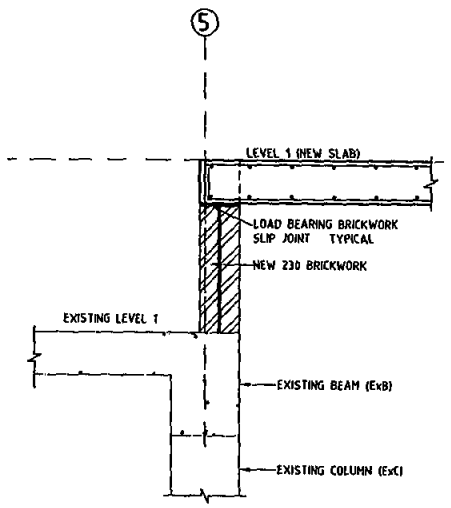
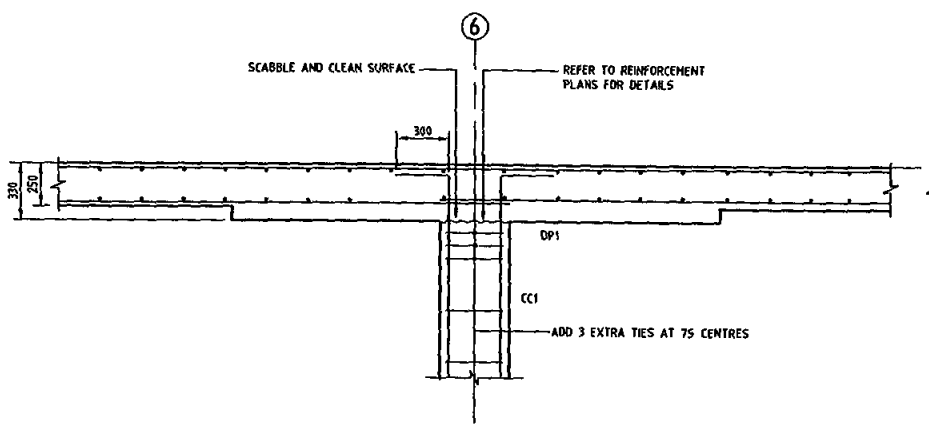
Project
ALTERATIONS & ADDITIONS
1753 PITTWATER ROAD
MONA VALE

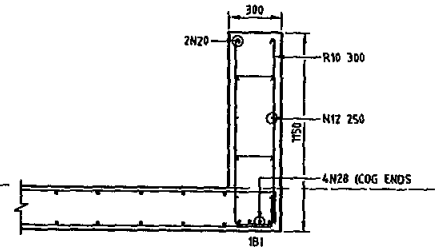
Drawing Title
LEVEL 1
SLAB PLAN

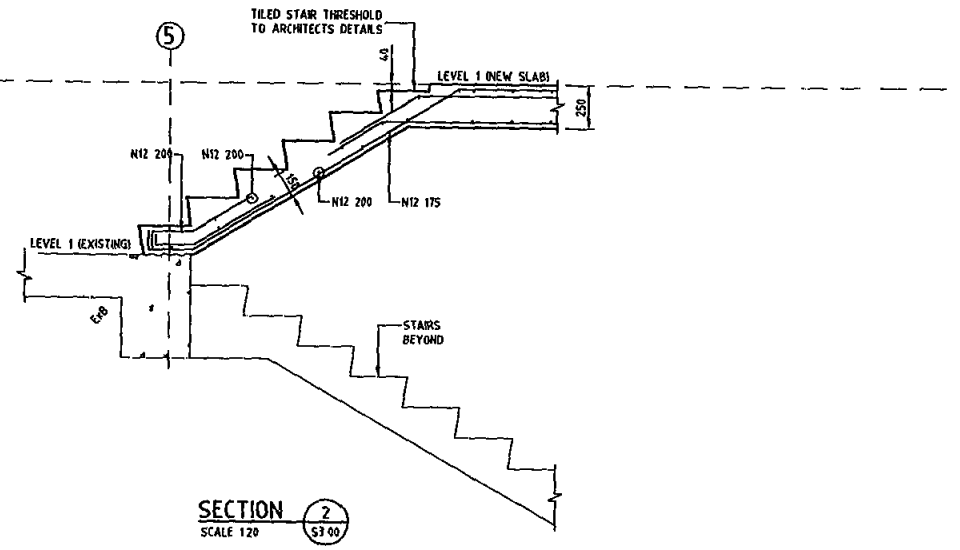
Drawn	Date	Scale At	O.A. Check	Date
JPT	FEB 08	NOTED		
Checked	Project No	Dwg No	Issue
AH	SY08 0070	S3 00	2



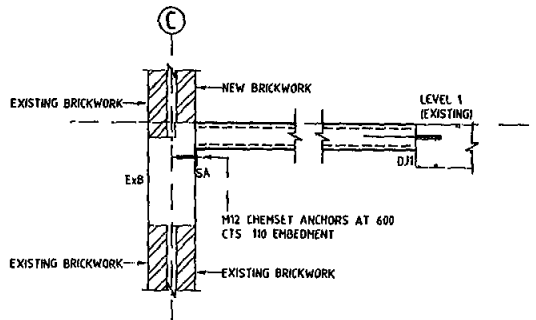


SECTION 1 S3 00
SCALE 1:20

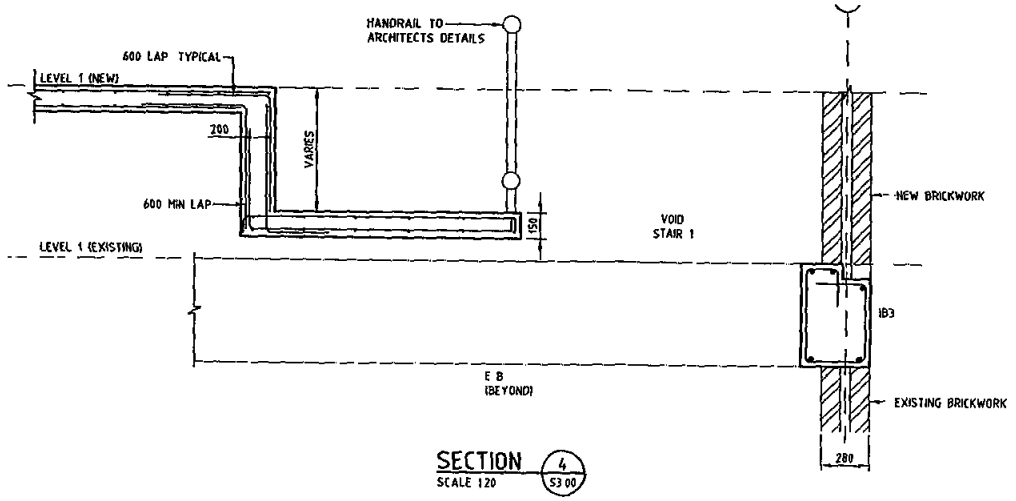




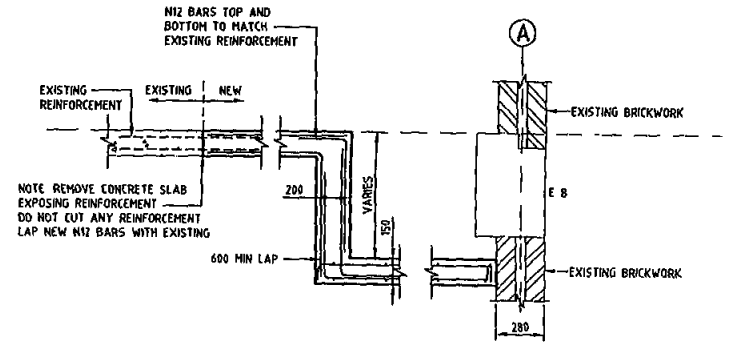
SECTION 2 S3 00
SCALE 1:20



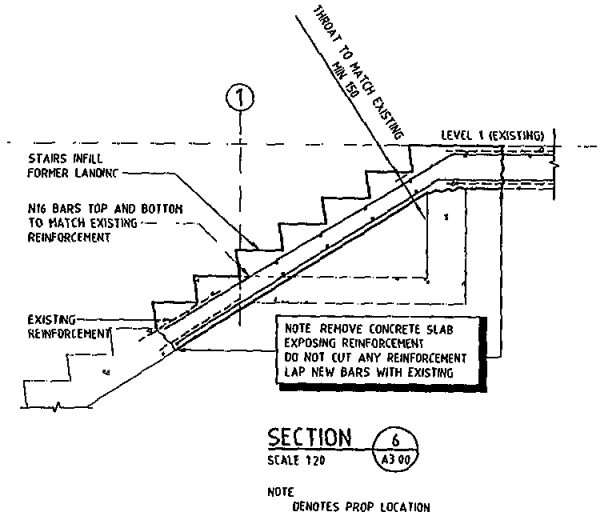
SECTION 3 S3 00
SCALE 1:20



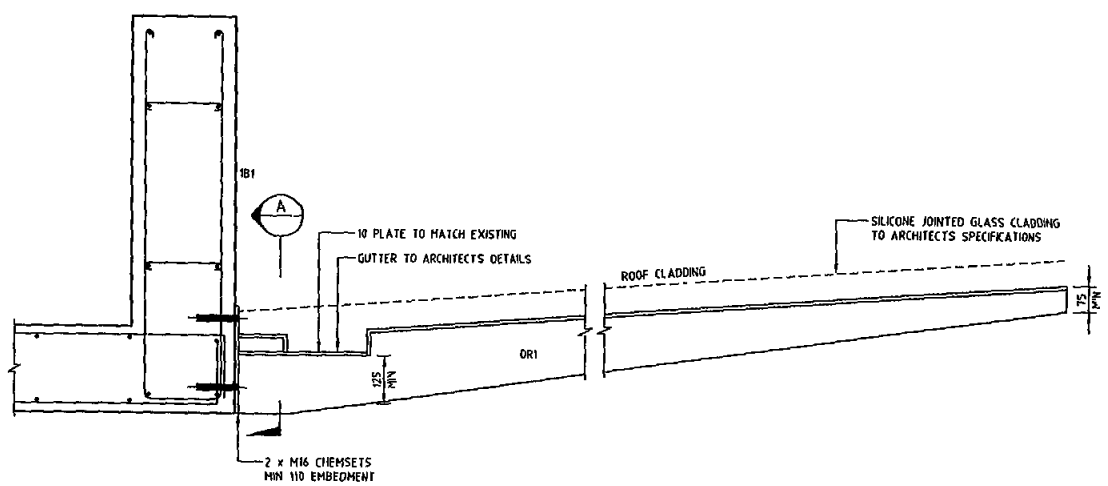
SECTION 4 S3 00
SCALE 1:20
STAIRS REMOVED FOR CLARITY



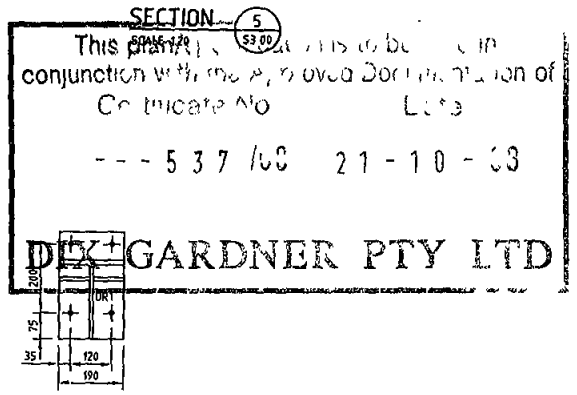
SECTION 5 S3 00
SCALE 1:20



SECTION 6 A3 00
SCALE 1:20
NOTE
DENOTES PROP LOCATION



SECTION 7 S3 00
SCALE 1:10



SECTION A
SCALE 1:10

Issue	Description	Dat	Drawn	Chkd
3	RE ISSUED FOR CONSTRUCTION	28 04 08	JPT	AH
2	ISSUED FOR REVIEW	30 03 08	JPT	AH
1	ISSUED FOR CONSTRUCTION	07 03 08	JPT	AH
C	ISSUED FOR CC	27 02 08	JPT	AH
B	ISSUED FOR REVIEW	25 02 08	JPT	AH
A	ISSUED FOR INFORMATION	18 02 08	JPT	AH

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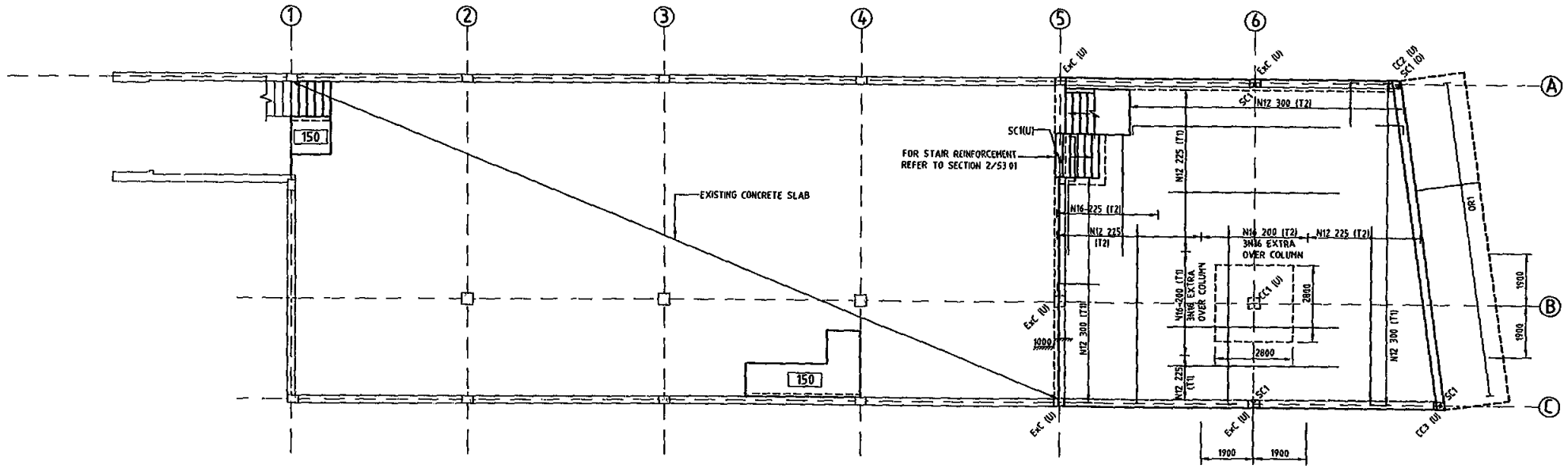
Project
ALTERATIONS & ADDITIONS
1753 PITTWATER ROAD
MONA VALE

Drawing Title
LEVEL 1 SECTIONS
SHEET 1

Drawn	Date	Scale A1	Q.A. Check	Date
JPT	FEB 08	NOTED		
Checked	Project No.	Dwg No	Is
AH	SY08 0070	S3 01	3



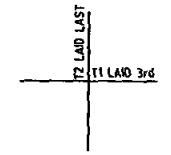
LEVEL 1 - TOP REINFORCEMENT PLAN

SCALE 1:100

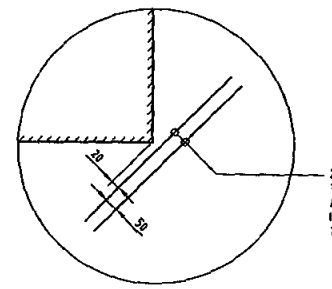
150 DENOTES 150 THICK INFILL SLAB SL82 TOP UNLESS OTHERWISE NOTED

ExC DENOTES EXISTING CONCRETE COLUMN

SC1 REFER MEMBER SCHEDULE ON S3 00
OR1 REFER MEMBER SCHEDULE ON S3 00



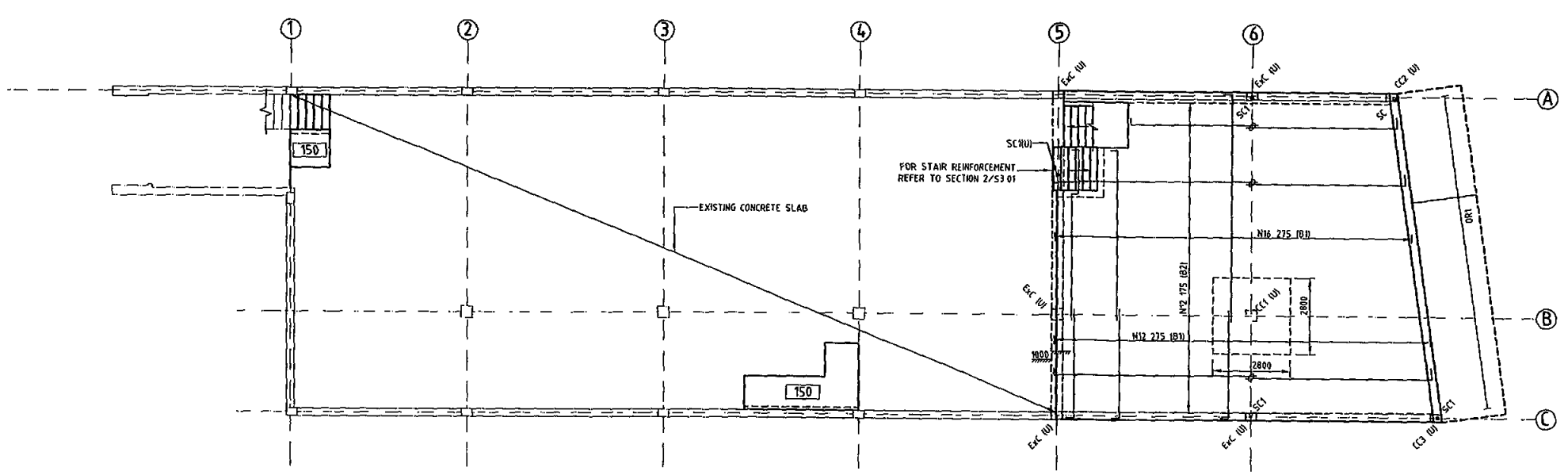
BAR LAYING SEQUENCE
TYPICAL UNO



2 N12 CORNER BARS x 1200 LONG TIED UNDER REINFORCEMENT AT ALL RE ENTRANT CORNERS INCLUDING ALL SLAB POCKETS TO STEEL COLUMNS

TYPICAL SLAB RE-ENTRANT CORNER DETAIL

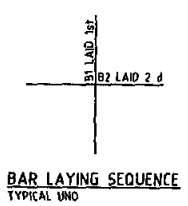
SCALE 1:20



LEVEL 1 - BOTTOM REINFORCEMENT PLAN

SCALE 1:100

150 DENOTES 150 THICK INFILL SLAB SL82 BOTTOM UNLESS OTHERWISE NOTED



BAR LAYING SEQUENCE
TYPICAL UNO

This plan/specification is to be read in conjunction with the Approved Documentation of Consent No - 537/08 Date 21-10-08

DIX GARDNER PTY LTD

Issue	Description	Date	Drawn	Chkd
3	RE ISSUED FOR CONSTRUCTION	28 04 08	JPT	AH
2	ISSUED FOR REVIEW	30 03 08	JPT	AH
1	ISSUED FOR CONSTRUCTION	07 03 08	JPT	AH
B	ISSUED FOR CC	27 02 08	JPT	AH
A	ISSUED FOR INFORMATION	25 02 08	JPT	AH

Project North

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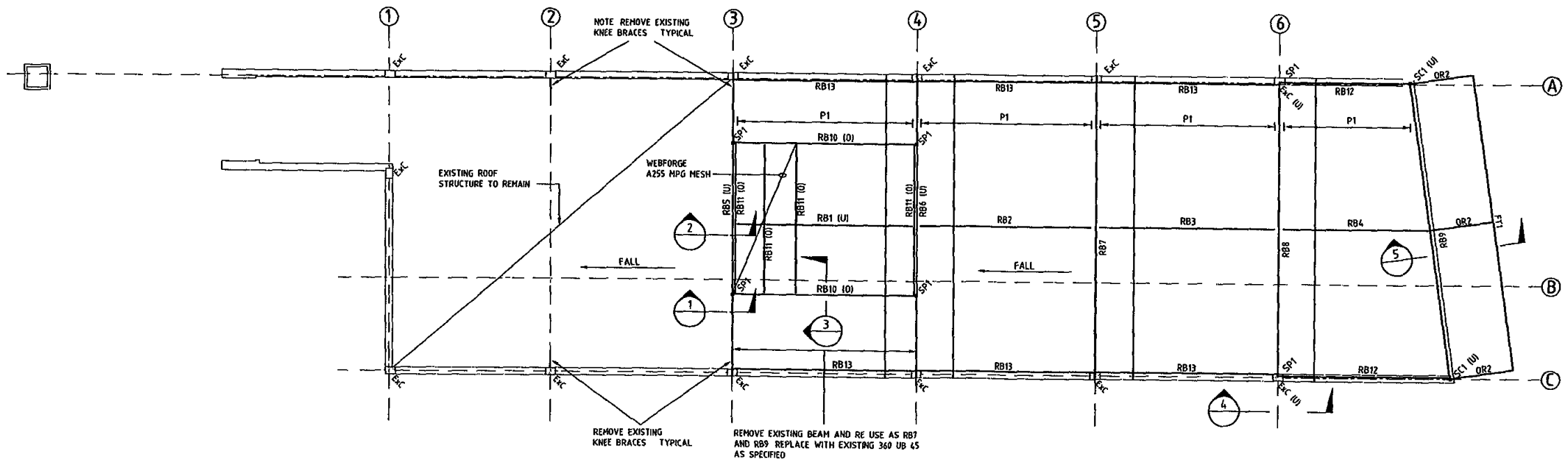
Project
ALTERATIONS & ADDITIONS
1753 PITTWATER ROAD
MONA VALE

Drawing Title
LEVEL 1
SLAB REINFORCEMENT PLAN

Drawn	Date	Scale At	O.A. Check	Da.
JPT	FEB 08	NOTED		
Checked	Project No	Dwg No	Is ue
AH	SY08 0070	S3 02	3



MEMBER SCHEDULE

MARK	SIZE	REMARKS
PURLINS		
P1	Z15015 PURLINS	MAX 1200 CTS 1 ROW BRIDGING
STEELWORK		
RB1 TO RB4	200 UB 25	USE EXISTING
RB5 TO RB6	410 UB 60	PRE CAMBER 15mm ↑
RB7 TO RB9	360 UB 45	USE EXISTING 310 UB 45
RB10 TO RB12	150 PFC	
RB13	75 x 75 x 6 EA	M12 BOLTS AT 600 CTS
SP1	75 x 75 x 5 CHS	STUB POST
FT1	REFER TYPICAL DETAIL	FASCIA TRUSS
EA1	150 x 150 x 10 EA	
OUTRIGGERS		
OR2	200 UB 25	

ROOF STEELWORK LAYOUT
SCALE 1:100

NOTES.

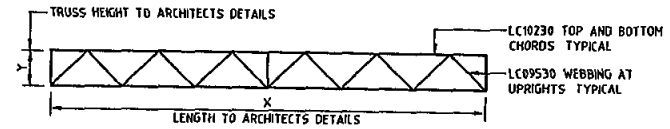
WHERE POSSIBLE NEW ROOF FRAMING TO MATCH EXISTING

ExC DENOTES EXISTING CONCRETE COLUMN

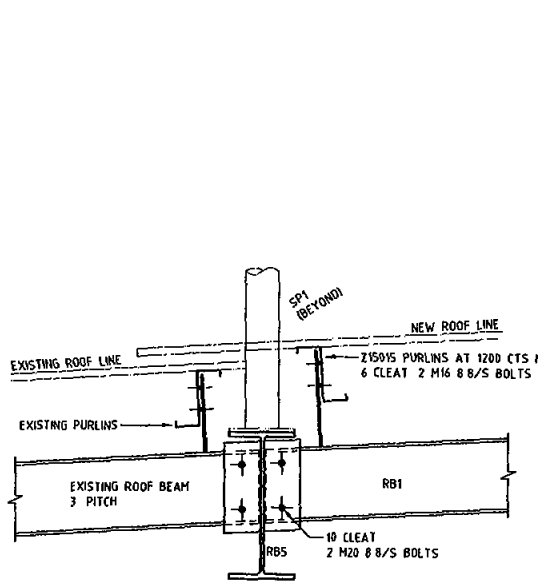
This plan/specification is to be read in conjunction with the Approved Documentation of

---537/08 21-10-08

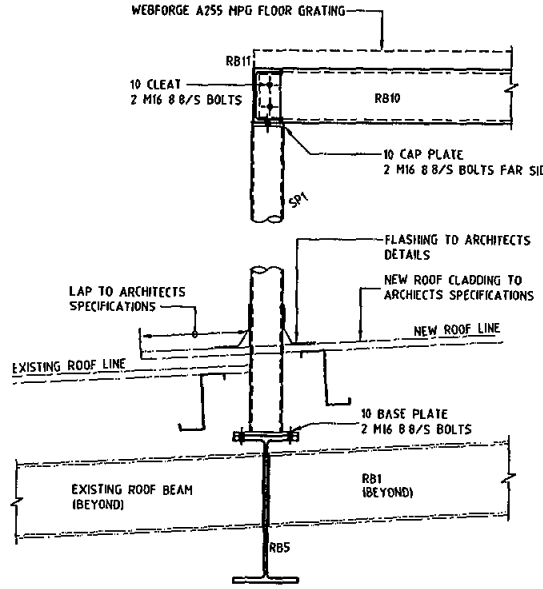
DIX GARDNER PTY LTD



FT1 TYPICAL DETAIL
SCALE 1:100



SECTION 1
SCALE 1:10



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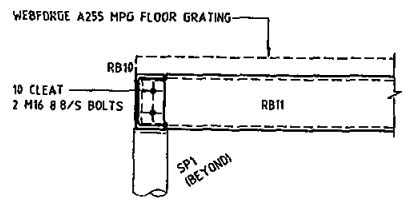
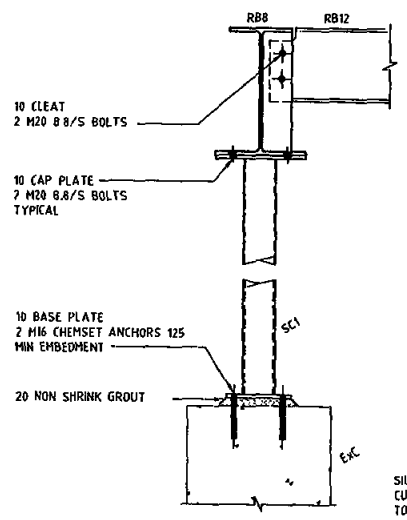
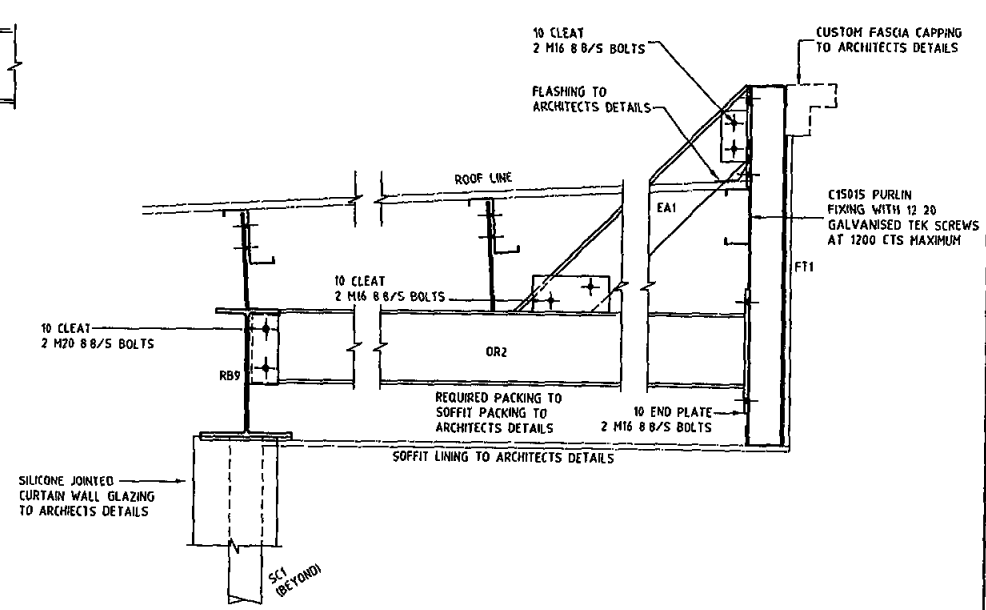
SCALE 1:10



SECTION 3
SCALE 1:10



SECTION 4
SCALE 1:10



SECTION 5
SCALE 1:10

NOT FOR CONSTRUCTION

C	ISSUED FOR REVIEW	17 07 08	JPT	AH
B	ISSUED FOR CC	27 02 08	JPT	AH
A	ISSUED FOR INFORMATION	25 02 08	JPT	AH
Issue	Description	Date	Drawn	Chkd

Project North

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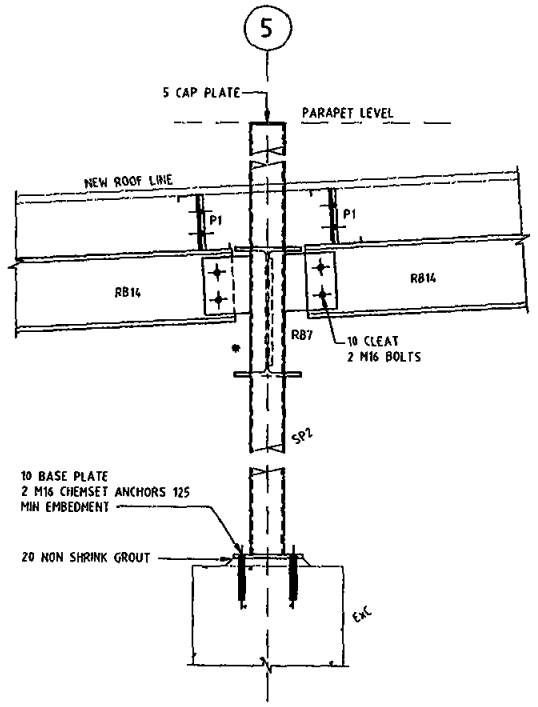
Project
ALTERATIONS & ADDITIONS
1753 PITTWATER ROAD
MONA VALE

Drawing Title
ROOF STEELWORK LAYOUT

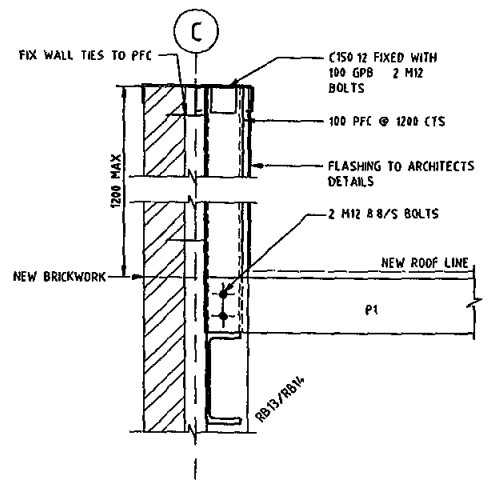
Drawn	Date	Scale	O.A. Check	Date
JPT	FEB 08	AS NOTED		
Checked	Project No	Dwg No.	Issue	
AH	SY08 0070	S4 00	C	



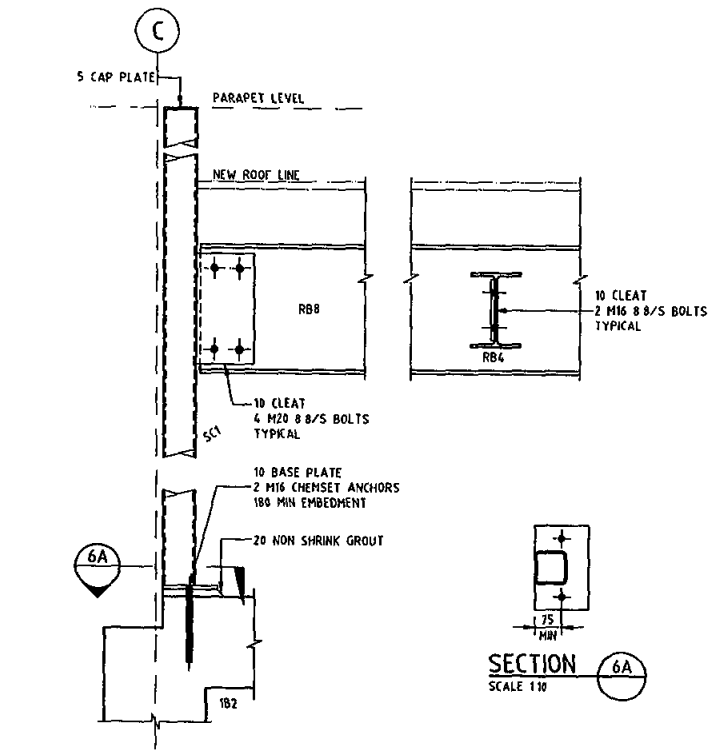
SECTION 4 / S4 00
SCALE 1:10

BRICKWORK NOT SHOWN FOR CLARITY

* REFER TO SECTION 6 FOR TYPICAL CONNECTION DETAIL



SECTION 5 / S4 00
SCALE 1:10

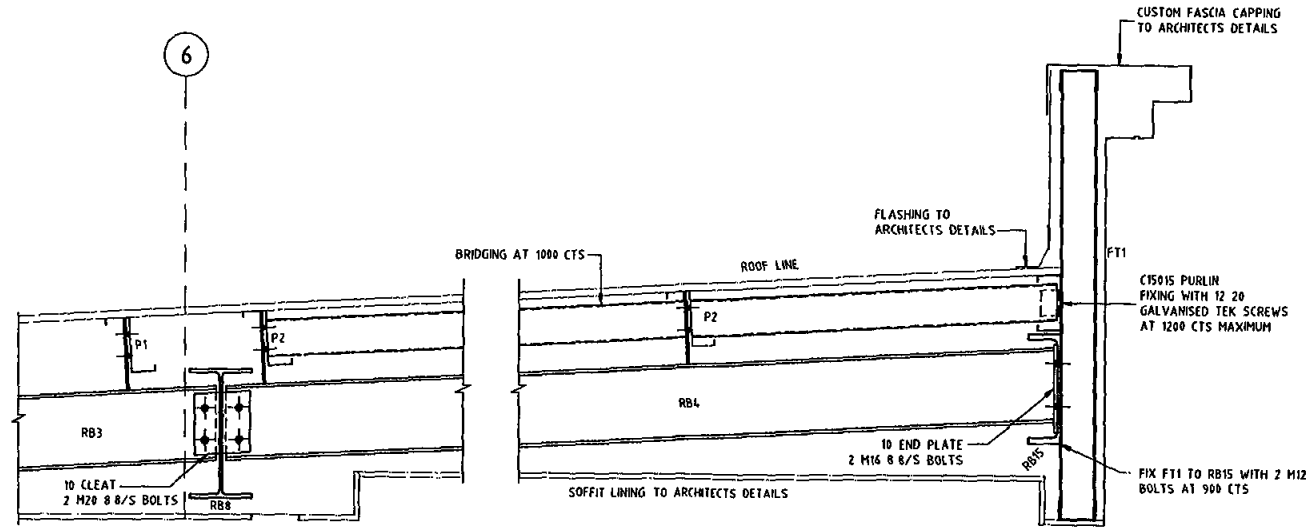


TYPICAL COLUMN TO BEAM DETAIL

SECTION 6 / S4 00
SCALE 1:10

BRICKWORK NOT SHOWN FOR CLARITY
RB13/RB14 DETAIL NOT SHOWN FOR CLARITY

SECTION 6A
SCALE 1:10



SECTION 7 / S4 00
SCALE 1:10

This plan/specification is to be read in conjunction with the Approved Development Application of [illegible] 537/08 21-10-08

DIX GARDNER PTY LTD

Issue	Description	Date	Drawn	Chkd
1	ISSUED FOR CONSTRUCTION	01 08 08	LH	AH
B	ISSUED FOR REVIEW 2	31 07 08	LH	AH
A	ISSUED FOR REVIEW	16 05 08	JPT	AH

Project North

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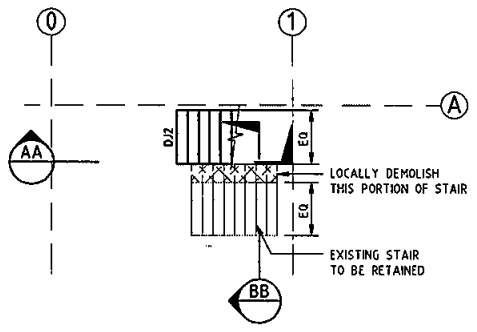
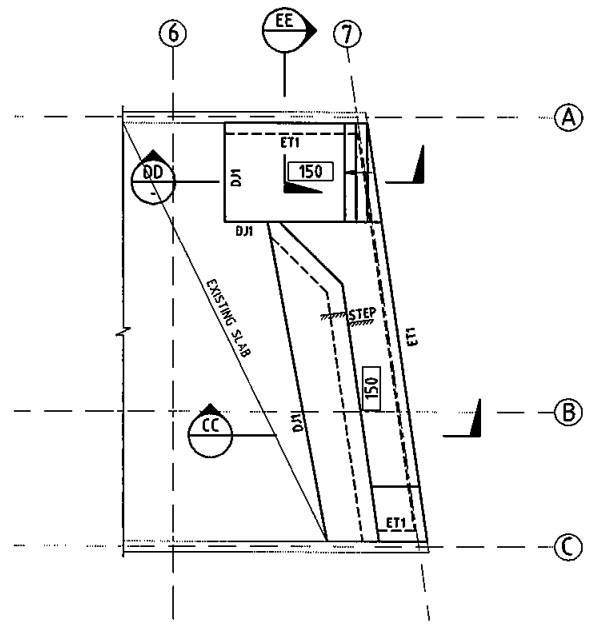
Project
ALTERATIONS & ADDITIONS
1753 PITTWATER ROAD
MONA VALE

Drawing Title
GENERAL ROOF SECTIONS

Drawn	Date	Scale A1	Q.A. Check	Date
JPT	FEB 08	AS NOTED		
Checked	Project No.	Dwg No.	Issue
AH	SY08 0070	S4 01	B

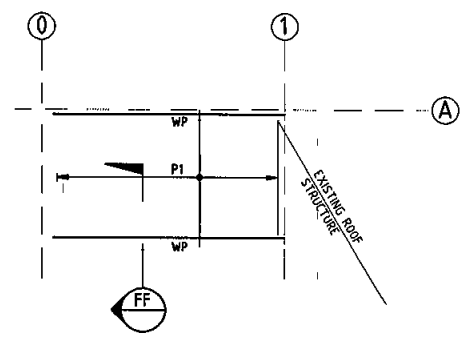


GROUND FLOOR STAIR ALTERATION PART PLAN



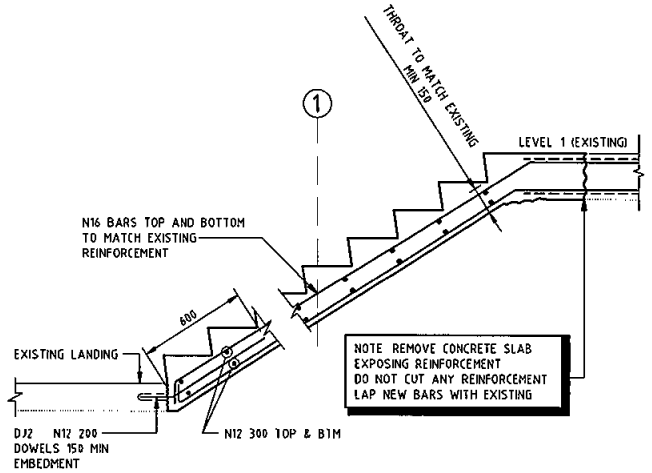
GROUND FLOOR SLAB PART PLAN

ALL SLABS TO BE 150 THK WITH SL82 TOP U N O

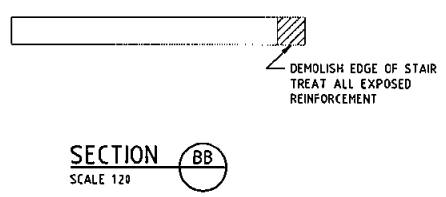


ROOF FRAMING PART PLAN

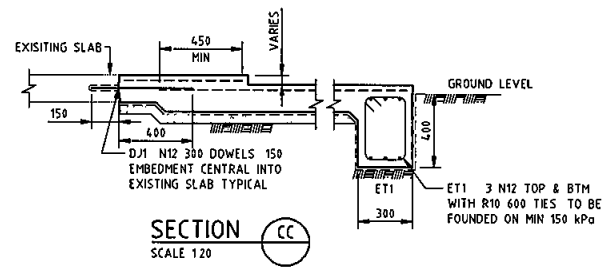
P1 150 x 45 LVL PURLINS AT 600 CTS
WP 190 x 50 F7 WALL PLATE



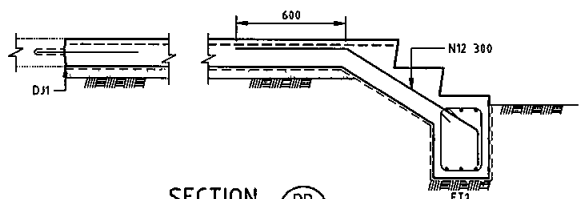
SECTION AA
SCALE 1:20



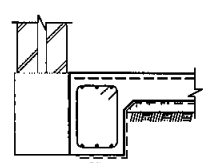
SECTION BB
SCALE 1:20



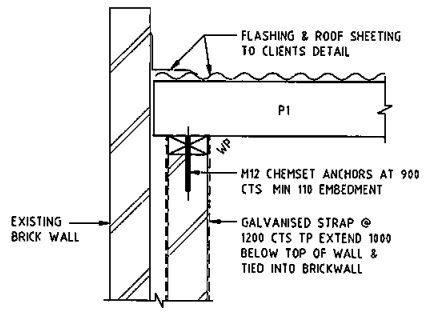
SECTION CC
SCALE 1:20



SECTION DD
SCALE 1:20



SECTION EE
SCALE 1:20



SECTION FF
SCALE 1:10

Issue	Description	Date	Drawn	Chkd
1	ISSUED FOR CONSTRUCTION	11 09 08	LH	AH

Project North

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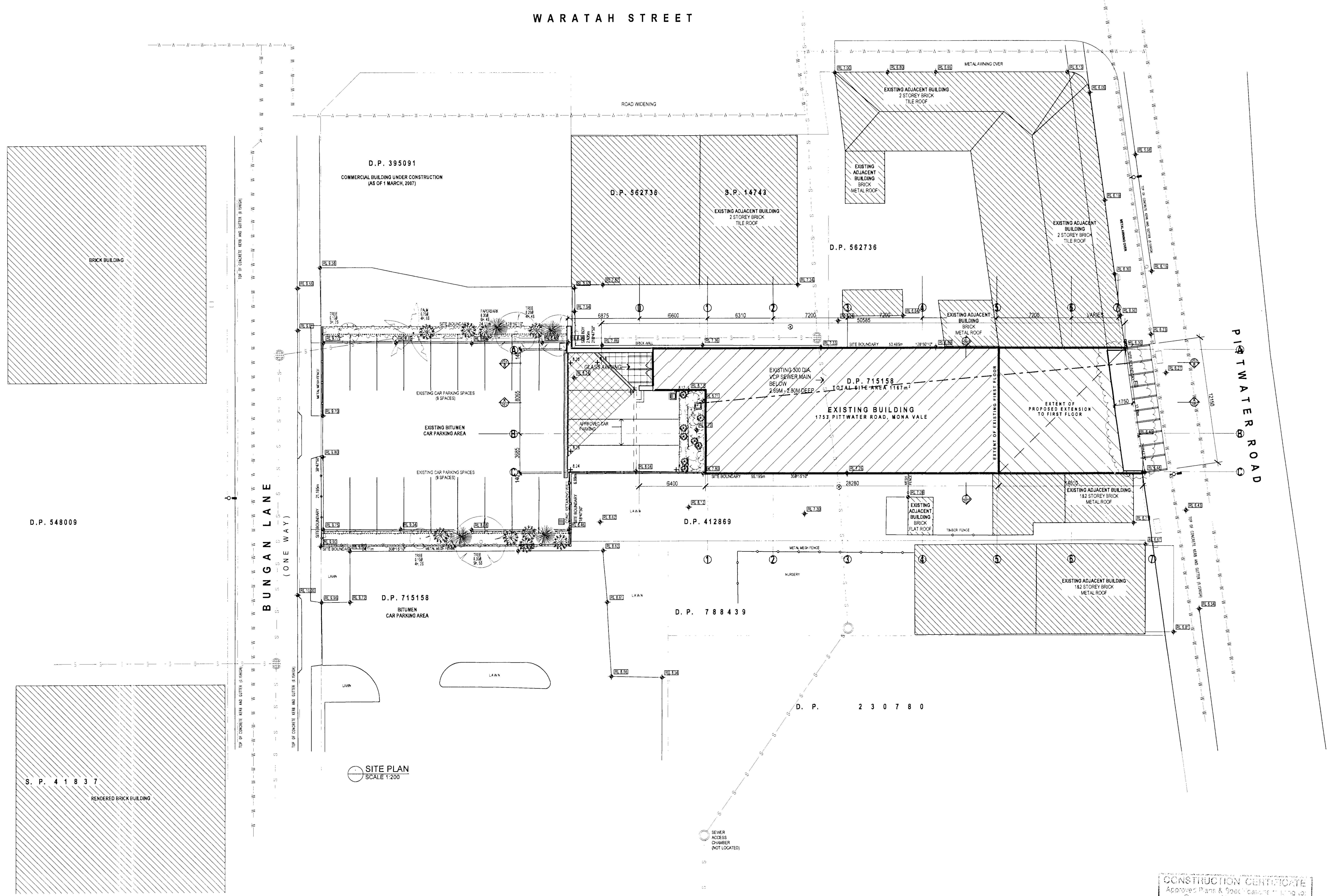
Project
ALTERATIONS & ADDITIONS
1753 PITTWATER ROAD
MONA VALE

Drawing Title
GENERAL ROOF SECTIONS

Drawn	Date	Scale At	C.A. Check	Date
JPT	FEB 08	1 100 U N O		
Checked	Project No.	Dwg. No.	Issue
AH	SY08 0070	S5 00	1



CONSTRUCTION CERTIFICATE
APPROVED
DIX GARDNER PTY LTD

18/07/2008 2:43 PM

AMENDMENTS		
2	1ST FL. EAST - AWNING REMOVED, BALCONY ADDED, OFFICE SIZE REDUCED & SUN SHADE TRANSOMS ADDED TO WINDOWS TO CLOUDED AREAS.	17/07/2008
1	ISSUED FOR CONSTRUCTION	08/05/2008

N

CLIENT	KETHEL (INVESTMENTS) PTY LTD 1792 PITTWATER ROAD BAYVIEW NSW 2104	DRAWN BY MJL	PROJECT No. 823
PROJECT	ALTERATIONS TO EXISTING COMMERCIAL DEVELOPMENT 1753 PITTWATER ROAD MONA VALE NSW 2103	DATE 14/03/2008	AMENDMENT 2
DRAWING	SITE PLAN	SCALE 1:200	DRAWING No. 003
DRAWING STATUS	FOR CONSTRUCTION		

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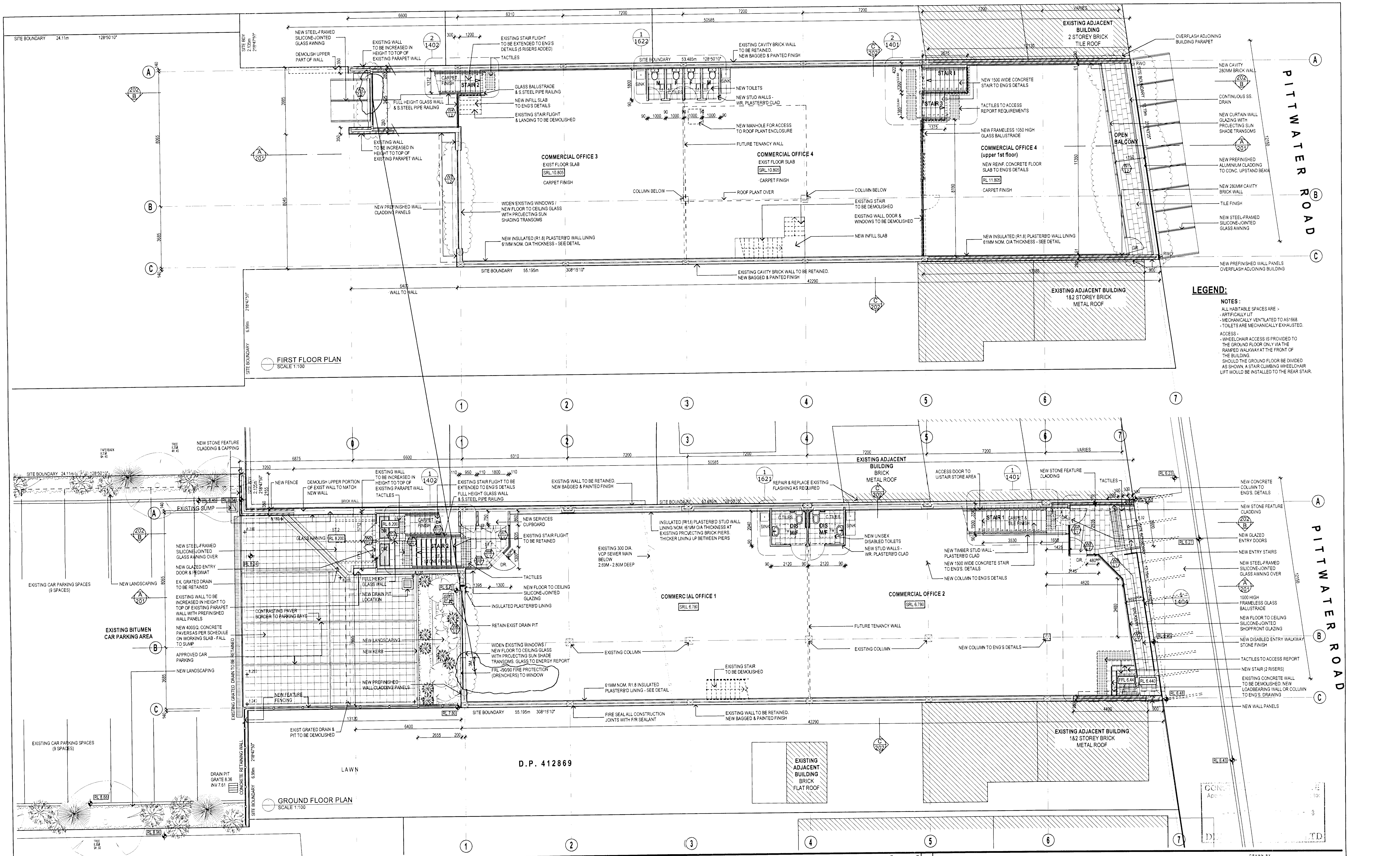
Nominated Architect: Drew Dickson Architect's Registration No. 4215



FIRST FLOOR PLAN
SCALE 1:100
COMMERCIAL OFFICE 3
COMMERCIAL OFFICE 4
COMMERCIAL OFFICE 4 (upper 1st floor)
OPEN BALCONY
EXISTING ADJACENT BUILDING
2 STOREY BRICK
TILE ROOF
EXISTING ADJACENT BUILDING
1&2 STOREY BRICK
METAL ROOF
PITTWATER ROAD
LEGEND:
NOTES :
ALL HABITABLE SPACES ARE :-
- ARTIFICIALLY LIT
- MECHANICALLY VENTILATED TO AS1668.
- TOILETS ARE MECHANICALLY EXHAUSTED.
ACCESS :-
- WHEELCHAIR ACCESS IS PROVIDED TO THE GROUND FLOOR ONLY VIA THE RAMPED WALKWAY AT THE FRONT OF THE BUILDING.
SHOULD THE GROUND FLOOR BE DIVIDED AS SHOWN, A STAIR CLIMBING WHEELCHAIR LIFT WOULD BE INSTALLED TO THE REAR STAIR.
GROUND FLOOR PLAN
SCALE 1:100
COMMERCIAL OFFICE 1
COMMERCIAL OFFICE 2
EXISTING BITUMEN CAR PARKING AREA
EXISTING CAR PARKING SPACES (9 SPACES)
D.P. 412869
LAWN
EXISTING ADJACENT BUILDING
BRICK
FLAT ROOF

CLIENT	KETHEL (INVESTMENTS) PTY LTD 1792 PITTWATER ROAD BAYVIEW NSW 2104
PROJECT	ALTERATIONS TO EXISTING COMMERCIAL DEVELOPMENT 1753 PITTWATER ROAD MONA VALE NSW 2103
DRAWING	GROUND & FIRST FLOOR PLAN
DRAWING STATUS	FOR CONSTRUCTION
DRAWN BY	MJL
PROJECT No.	823
DATE	14/03/2008
AMENDMENT	2
SCALE	1:100
DRAWING No.	100

AMENDMENTS

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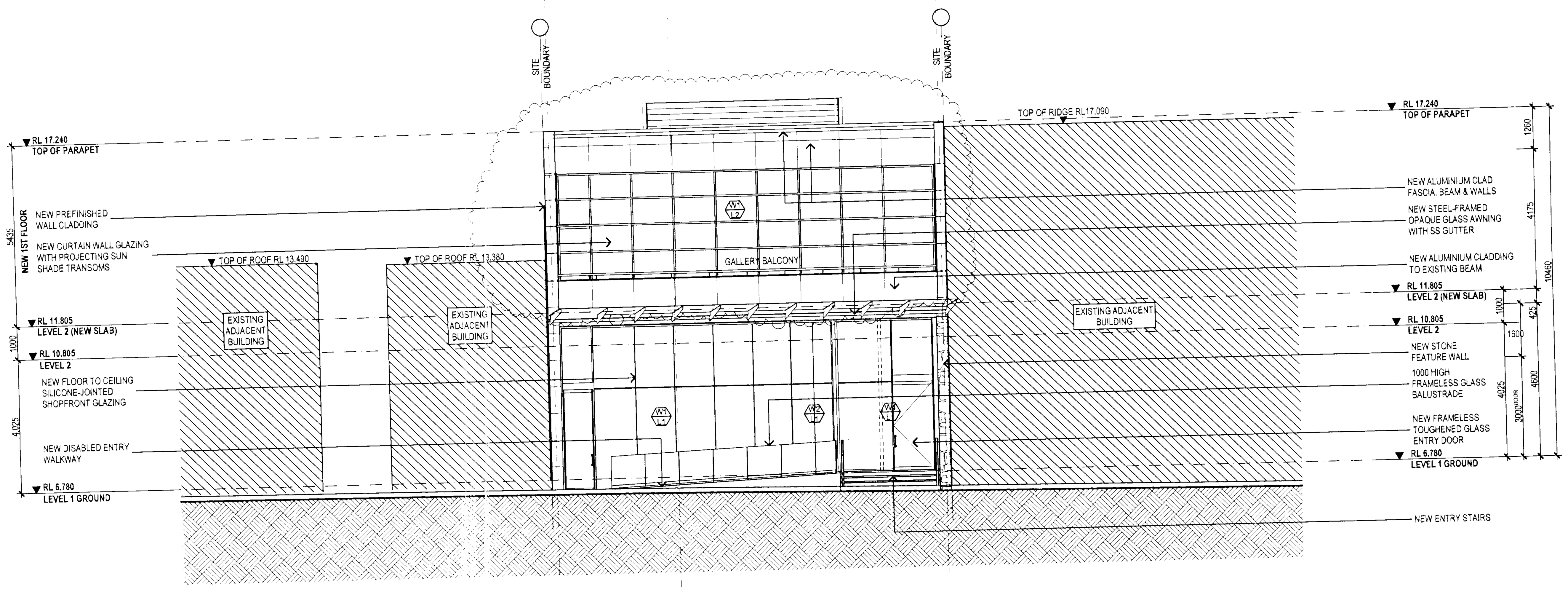
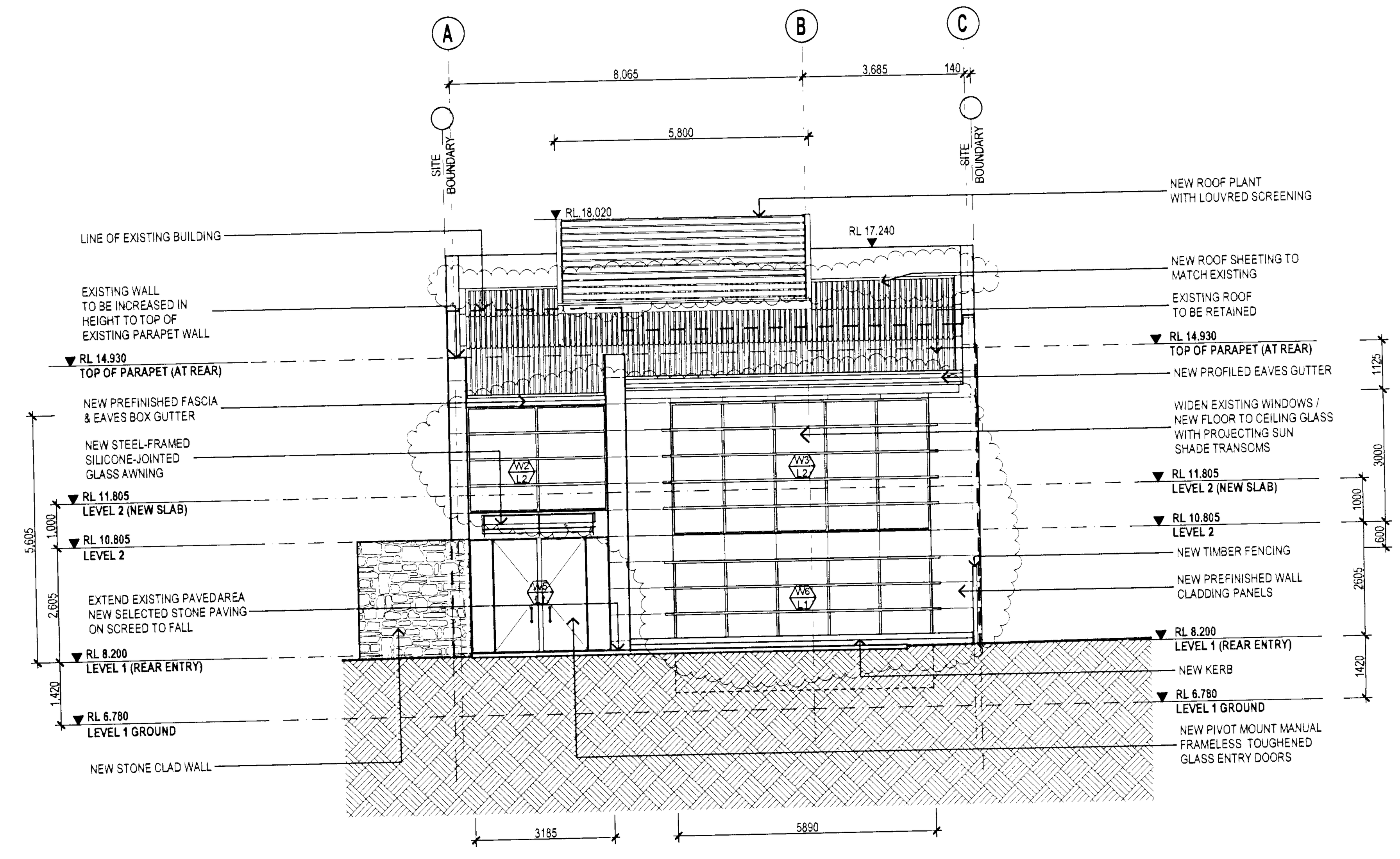
DREW DICKSON ARCHITECTS

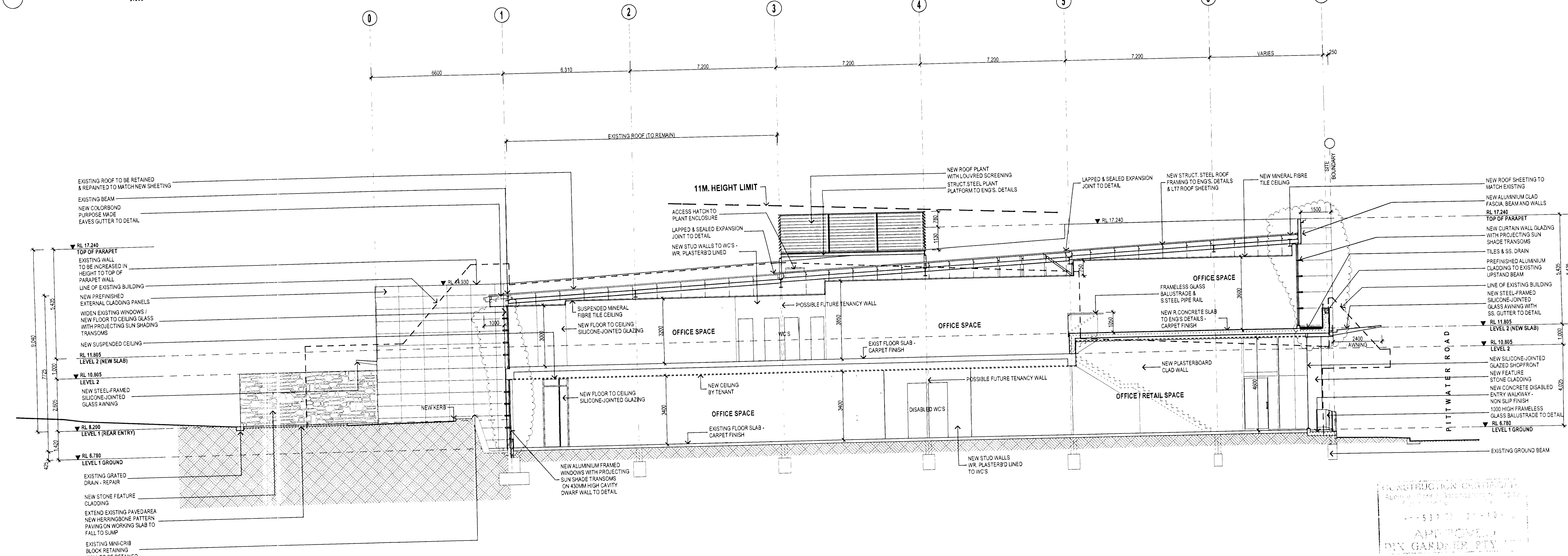
18/07/2008 2:43 PM



EAST ELEVATION
1:100



WEST ELEVATION
1:100



SECTION A-A
1:100

CONSTRUCTION CERTIFICATE
APPROVED
DIX GARDNER PTY

2	AWNING REMOVED & BALCONY ADDED TO EASTERN FACE OF BUILDING. SUN SHADING TRANSOMS ADDED TO WINDOWS. REFER TO CLOUDED AREAS. 17/07/2008
1	ISSUED FOR CONSTRUCTION 08/05/2008

AMENDMENTS

CLIENT KETHEL (INVESTMENTS) PTY LTD
1792 PITTWATER ROAD BAYVIEW NSW 2104

PROJECT ALTERATIONS TO EXISTING COMMERCIAL DEVELOPMENT
1753 PITTWATER ROAD MONA VALE NSW 2103

DRAWING ELEVATIONS & SECTION

DRAWING STATUS **FOR CONSTRUCTION**

DRAWN BY MJL — PROJECT No. 823
DATE 14/03/2008 — AMENDMENT 2
SCALE 1:100 — DRAWING No. 201

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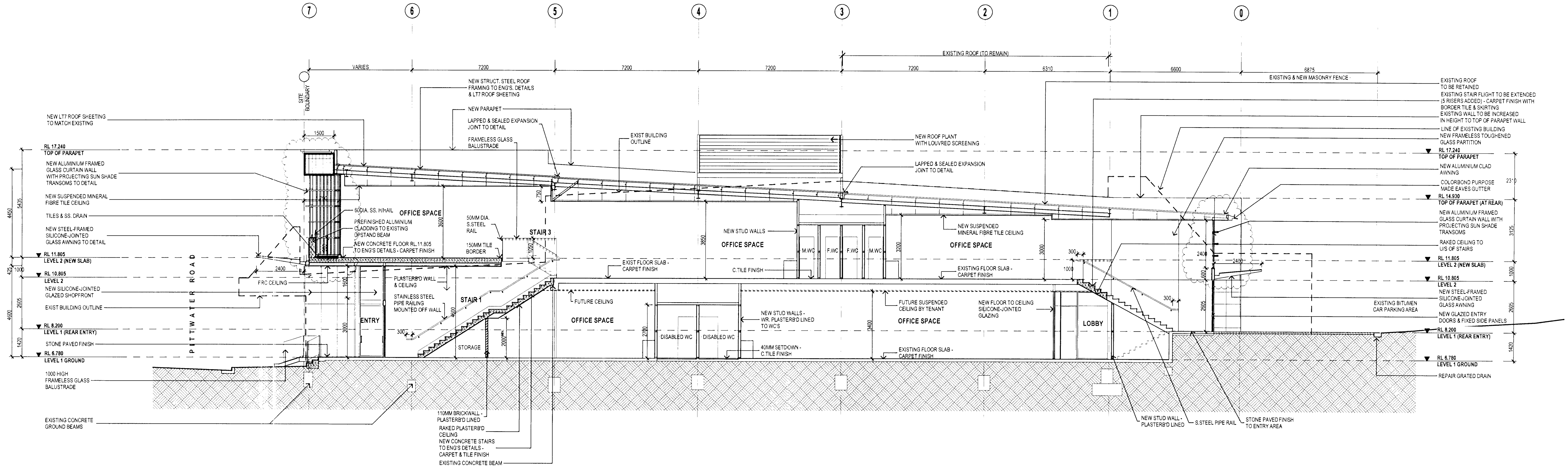
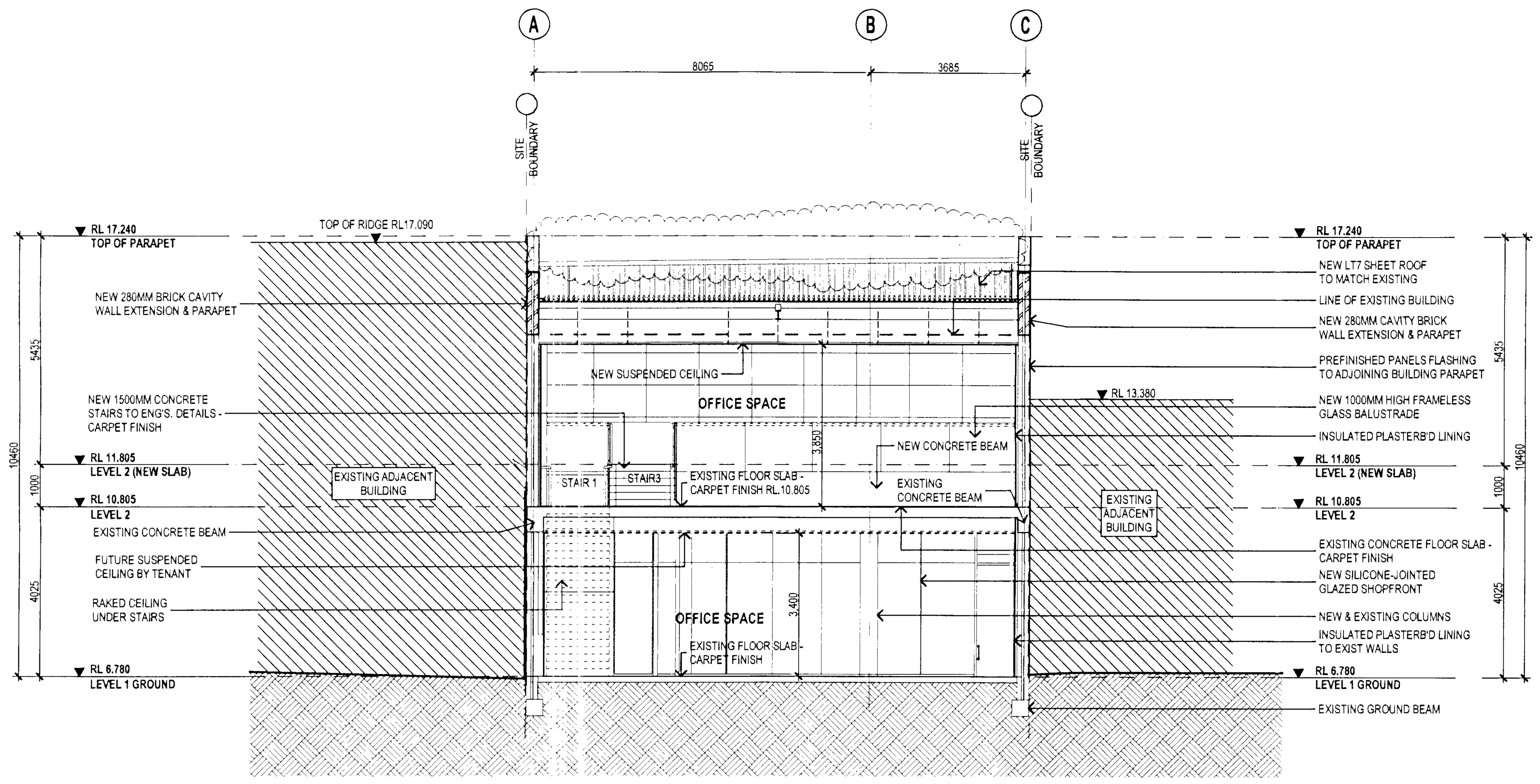
w w w . d d p . c o m . a u

18/07/2008 2:44 PM



SECTION B-B
1:100



SECTION C-C
1:100

CLIENT	KETHEL (INVESTMENTS) PTY LTD 1792 PITTWATER ROAD BAYVIEW NSW 2104
PROJECT	ALTERATIONS TO EXISTING COMMERCIAL DEVELOPMENT 1753 PITTWATER ROAD MONA VALE NSW 2103
DRAWING	SECTIONS
DRAWING STATUS	FOR CONSTRUCTION
DRAWN BY	MJL
PROJECT No.	823
DATE	14/03/2008
AMENDMENT	2
SCALE	1:100
DRAWING No.	202

AMENDMENTS

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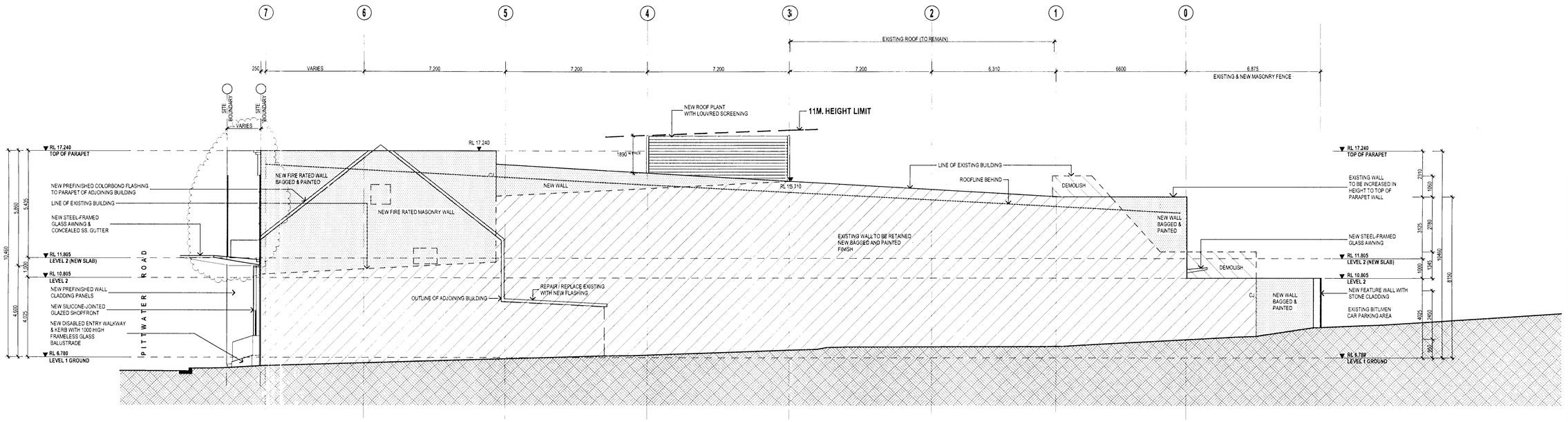
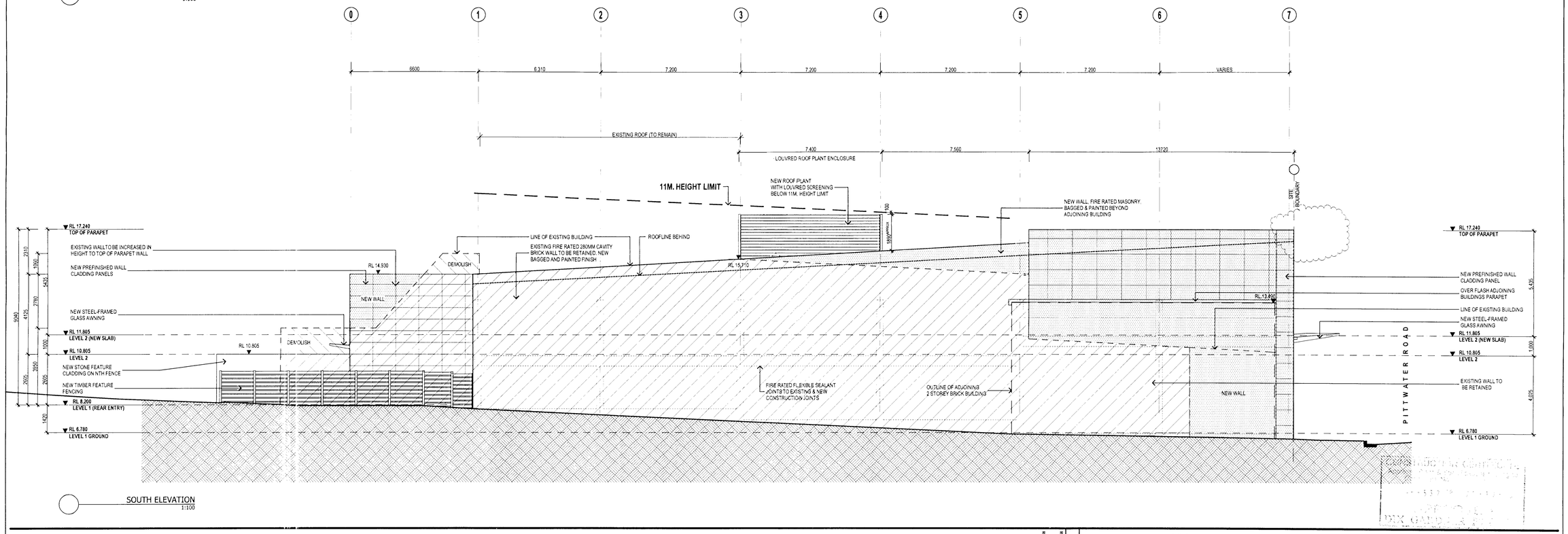


NORTH ELEVATION
1:100



SOUTH ELEVATION
1:100

AMENDMENTS		
1	ISSUED FOR CONSTRUCTION	08/05/2008
2	AWNING REMOVED EASTERN END OF BUILDING REFER TO CLOUDED AREAS	11/07/2008

CLIENT	KETHEL (INVESTMENTS) PTY LTD 1792 PITTWATER ROAD BAYVIEW NSW 2104	DRAWN BY	PROJECT No.
		MJL	823
PROJECT	ALTERATIONS TO EXISTING COMMERCIAL DEVELOPMENT 1753 PITTWATER ROAD MONA VALE NSW 2103	DATE	AMENDMENT
		14/03/2008	2
DRAWING	ELEVATIONS	SCALE	DRAWING No.
		1:100	301
DRAWING STATUS	FOR CONSTRUCTION		

16/07/2008 2:43 PM

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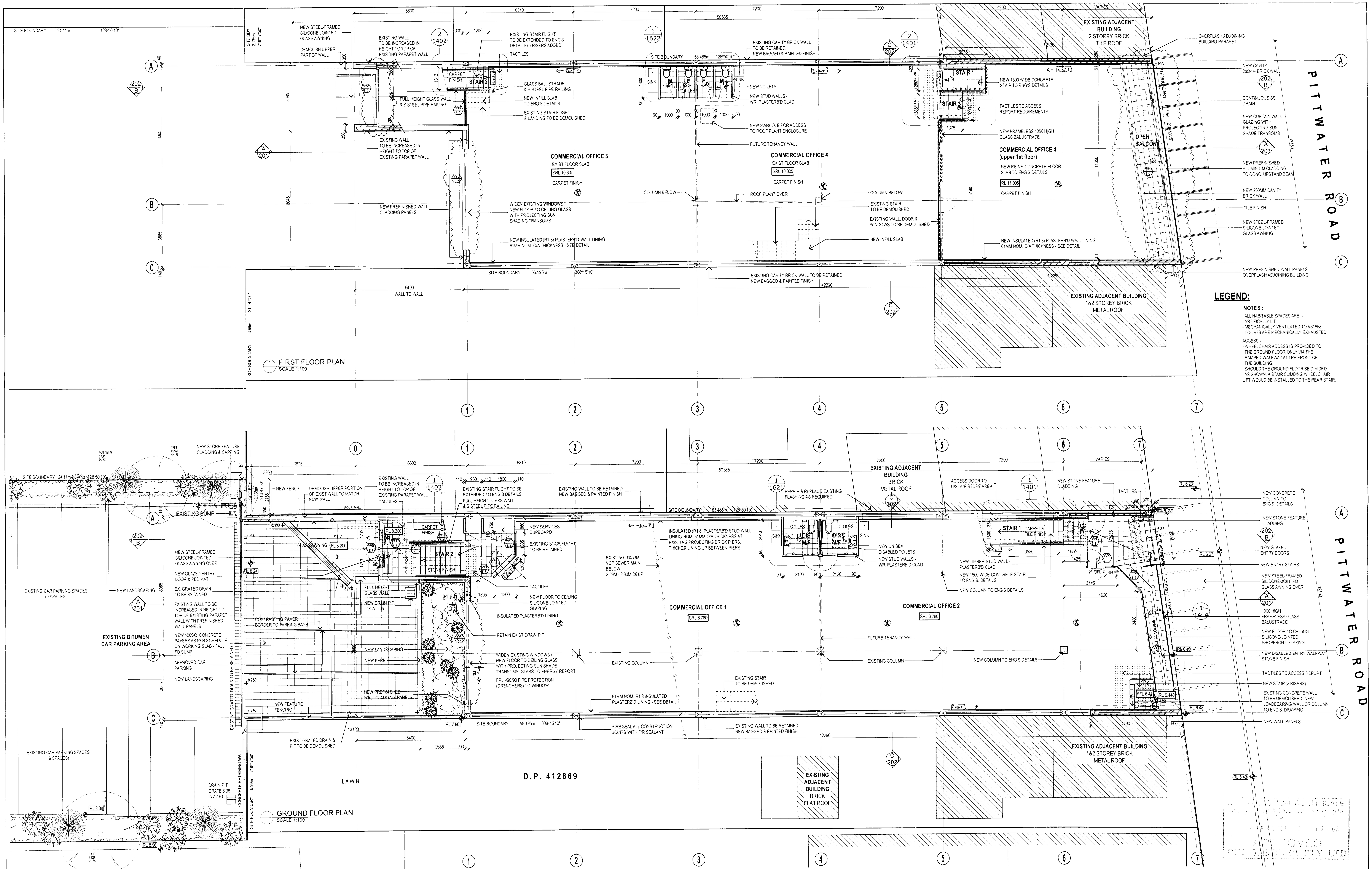

CLIENT	KETHEL (INVESTMENTS) PTY LTD 1792 PITTWATER ROAD BAYVIEW NSW 2104
PROJECT	ALTERATIONS TO EXISTING COMMERCIAL DEVELOPMENT 1753 PITTWATER ROAD MONA VALE NSW 2103
DRAWING	GROUND & FIRST FLOOR PLAN
DRAWING STATUS	FOR CONSTRUCTION
DRAWN BY	MJL
PROJECT No	823
DATE	14/03/2008
AMENDMENT	2
SCALE	1:100
DRAWING No	100

AMENDMENTS

07/08/2008 3:10 PM

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DREW DICKSON **ARCHITECTS**

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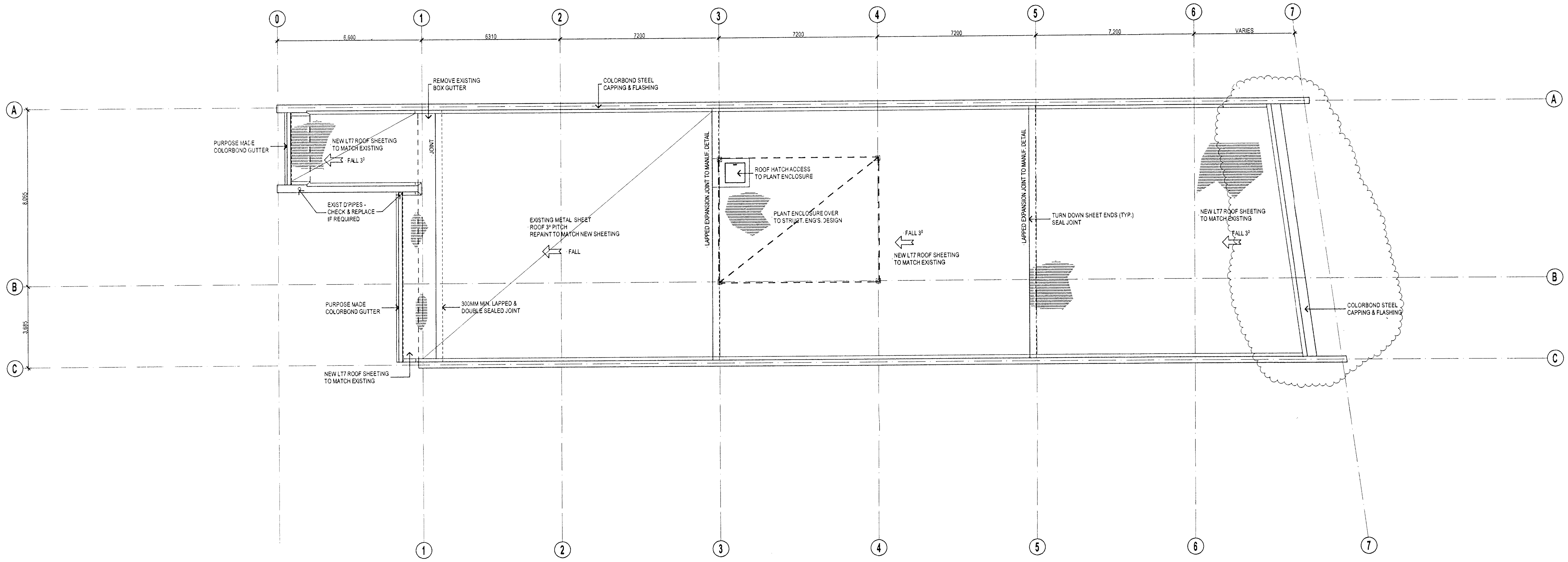

ROOF PLAN
SCALE 1:100

SPECIFICATION OF WORK – 1753 PITTWATER ROAD MONA VALE

Generally

All work is to be carried out in accordance with the Conditions of Development Approval DA0213/08 date 28th July 2008, any subsequent requirements of the Construction Certificate, the requirements of the Building Code of Australia and all Australian Standards.

Trades

All work is to be carried out to the satisfaction of the Proprietor and the Construction Manager under the direction of the Construction Manager.

CONCRETE

To be constructed to Australian Standards in accordance with the Structurcl and Architectural drawings. Concrete of a non-structural type, not shown on the Structural Engineer's drawings, shall be executed in accordance with the Architectural drawings.

BRICKWORK

All bricks are to be laid in accordance with the Australian Standard. Bond, pattern and appearance are to match existing adjoining brickwork with the selected and approved finish to the Schedule of External Finishes.

All external walls including existing walls are to be lined internally with Air Cell 'Retrofoil' reflective insulation installed to the manufacturer's detail and instructions, lined with plasterboard and painted to the Proprietor's satisfaction. Insulation values to comply with Section J of the BCA.

ROOFING

Sheet the new roof sections to match existing complete with all flashings and trims. 'Colorbond' colour finish to be as per the Schedule of External Finishes as approved by Council / the PCA. Foil faced fibreglass roof insulation blanket to match existing, in excess of R-Value required by Section J of the BCA.

WALL CLADDING

Wall panels to be selected stone as scheduled on approved fixings and pre-finished aluminium faced resin core 'sandwich' panels with Smartfix continuous extruded aluminium jointing and mounting strips. Both are to be installed by a skilled professional installers to the manufacturer's written recommendations, details and specifications.

WINDOWS

Rw values of windows are to comply with Section J of the BCA as recommended in the Energy Consultants Report. Frames are to be anodised aluminium in commercial grade extrusions equal in all respects to those manufactured by AWS, as indicated in the window details. They are to be designed, manufactured and certified to resist the appropriate wind loads and to comply with Section J of the BCA with respect of energy requirements as per the Energy Consultant recommendations. The glass for the windows is to be in accordance with the Energy Consultant's recommendations, as verified and certified by the window manufacturer. Finish as per the Schedule of External Finishes.

Glazed entry doors are to have safety glass and comply with Access requirements under As1428 including placement and type of hardware. Frameless glass entry doors are to be toughened safety glass and comply with AS1288 and with Section J of the BCA as much as possible, as per the Energy Consultant's recommendations as confirmed by the manufacturer.

DOORS

Toilet doors and other publicly accessible doors are to be solid core.
Doors to disabled toilet facilities and disabled access paths are to be greater than 800mm clear width and to have signage and hardware complying with AS1428.
Doors to electrical installation cupboards in paths of travel to required exits are to be metal lined and smoke sealed to comply with the BCA.

DOOR HARDWARE

All doors to have commercial quality stain chrome plate or stainless steel finish lever handles to suit Disabled Access requirements (D-Ring lever handles). Non-required doors to match those required for disabled access, except that service cupboard doors can have rim locks and, if required 150 x 10mm D-Pull handles and concealed catches. All handles are to be located at 1000mm above finished floor level.

TILING & PAVING

Stone and Tile paving to the external entry areas and stairs is to comply with the slip resistant requirements of AS 4586 and HB197 in accordance with the Access Report. Tactile indicators are to be installed to AS1428.4 and Part D3.8 of the BCA and Council's DCP P21.

HANDRAILS

Provide stainless steel handrails, as shown to both sides of the front entrance stair and the front and rear stairs leading to the ground and first floor. External handrails to be grade 316 or better brushed finish.

PLUMBING

Install minimum AAA rated water conserving devices and minimum 3.5 star hot water system to DA conditions. Supply and install fittings as selected by the Proprietor in accordance with Australian Standards.

ELECTRICAL

Supply and install electrical equipment selected by the Proprietor, including controls in accordance with Section J of the BCA to Australian Standards.
Lighting shall be installed to light levels and standards required by AS 1428 (Disabled Access Standard) and AS 1680 to comply with the Access Report requirement. Fittings to the Proprietor's approval. All new switch plates are to be located 1000mm above finished floor level. Existing switch plates in disabled access paths are to relocated between 900 and 1100mm AFFL as far as possible.

LETTERBOXES

Contact Australia Post regarding the size, number and location of letterboxes.

Prior to Occupation

- Photograph street trees and road reserve to Condition E1 of the DA Conditions.
- Restore damaged public infrastructure to Council's satisfaction to Condition E2.
- Obtain a Occupation Certificate.
- Affix street numbers as agreed with Council and Australia Post.
- Replace existing concrete footpath to entire Pittwater Road frontage with granite unit paving Samstone 300 x 600x 30 Sesame Green laid stretcher bond with white 300 x 600 x 30 header course to north and south boundary line extension. Lay on 100mm reinforced concrete slab to Council requirements. Professionally steam clean and sealed prior to issue of the Occupation Certificate. Notify the Manager, Reserves / Recreation & Building Services one week prior to commencement of work and for approval prior to issue of the Occupation Certificate.

AMENDMENTS		
2	ROOF TO EASTERN END ALTERED TO SUIT REMOVAL OF AWNING. REFER TO CLOUDED AREA.	17/07/2008
1	ISSUED FOR CONSTRUCTION	08/05/2008

CLIENT	KETHEL (INVESTMENTS) PTY LTD 1792 PITTWATER ROAD BAYVIEW NSW 2104	DRAWN BY MJL	PROJECT No. 823
PROJECT	ALTERATIONS TO EXISTING COMMERCIAL DEVELOPMENT 1753 PITTWATER ROAD MONA VALE NSW 2103	DATE 14/03/2008	AMENDMENT 2
DRAWING	ROOF PLAN	SCALE 1:100	DRAWING No. 199
DRAWING STATUS	**FOR CONSTRUCTION**		

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